Exhibit 3

Exhibit A

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF FLORIDA

CASE NO.: 1:22-CV-23753-KMM

EDWIN GARRISON, et al. on behalf of themselves and all others similarly situated,

Plaintiff,

v.

SAM BANKMAN-FRIED, et al.,

Defendants.

____________________________________/

DECLARATION OF DAN FRIEDBERG

I, Dan Friedberg, declare as follows:

1. I am a citizen and permanent resident of the United States. I am over 18 and am competent to make this Declaration.

2. I am admitted to practice law in the State of Washington. I served as chief compliance officer of West Realm Shires Services, Inc. ("FTX.US") and chief regulatory officer of FTX Trading Ltd. ("FTX International") until I resigned as described below. I have personal knowledge of the facts stated herein.

3. I am providing non-privileged information about aspects of the business of the FTX Entities and certain celebrities that served as what we called FTX Brand Ambassadors. As set forth below, many of these activities occurred in, and/or were emanated, from our FTX offices in Miami, Florida.

I. My Role with FTX International, FTX US, and Alameda Research

4. I was introduced to Samuel Bankman-Fried ("Sam") by his father who is a prominent tax professor at Stanford. I represented Alameda Research LLC ("Alameda") and then FTX International as outside counsel when I served as Chair of the Fintech group at an outside law firm since about the time that Sam left Jane Street to form his own trading firm.

5. In early 2020, when Sam decided to form FTX.US, I left my law firm to work full time for him. Ultimately, there were over a dozen lawyers retained, including the General Counsel for FTX.US (Ryne Miller), the General Counsel for FTX International (Can Sun), and the General Counsel for FTX Ventures (Tim Wilson) (Alameda, FTX International and FTX US shall hereafter be referred to as "the Organization").

6. The goal was for the General Counsels to report directly to Sam where possible in the case of FTX International, the President of FTX.US in the case of FTX.US, and to the CEO of Alameda in the case of FTX Ventures. I oversaw all lawyers -- as needed -- to efficiently deliver legal services to the Organization.

II. Events Leading Up to My Resignation From the Organization

7. On November 7, 2022, certain FTX personnel including Defendant Sam Bankman-Fried informed certain executives in the Bahamas of the existence of an $8 billion customer deficit with respect to FTX International.

8. The FTX International general counsel contacted me by zoom to inform me of this shocking development.

9. Prior to this disclosure, I had no idea of any customer deficit. I believed that the customer assets were fully funded on a 1:1 basis as represented to customers.

10. I reviewed my ethical obligations and felt that there was substantial risk that I would be used to further additional fraud in connection with the additional investment efforts if I stayed on. In addition, I no longer trusted Sam, Gary, or Nishad, and did not think that I could proceed under such circumstances.

11. I therefore tendered my resignation the following day.

III. Events Leading Up to My Cooperation With Plaintiffs

12. I was named as a Defendant in this action, in the current operative complaint filed on December 16, 2022. ECF No. 16.

13. After I was served with the Complaint, I called Plaintiffs' Counsel on March 3, 2023, to discuss an extension of time to file and serve my Response to the Complaint. I left a telephone message and was called back by Plaintiffs' Counsel. They asked me if I was represented in this matter, and I told him that I am a lawyer and that I was proceeding *pro se*.

14. I told Plaintiffs' Counsel that I did not have any personal knowledge of the issues that the Organization was facing, until shortly before my resignation. I also told Plaintiffs' Counsel that I wanted to cooperate and assist for the benefit of the FTX customers.

15. I explained to Plaintiffs' Counsel that at that point in time, I had already spent much money paying for counsel and that I had spent significant time disclosing everything I knew about these events to various federal officials and parties to the "Bankruptcy Action," pending in the United States Bankruptcy Court for the District of Delaware and styled *In re: FTX Trading Ltd., et al.*, No. 22-11068-JTD.

16. Plaintiffs' Counsel informed me to make sure to not reveal any information that could be covered by attorney-client privilege and/or any other potentially applicable privilege or confidentiality protections. I certainly agreed and have not disclosed any such information.

17. Plaintiffs' Counsel further asked me to make sure that any cooperation I provided to Plaintiffs, and the proposed Class, would not in any manner interfere with, and/or run contrary to any state or federal investigations. I agreed and reaffirmed to them that I had met extensively with federal authorities to assist with their investigation against the perpetrators.

18. Against this backdrop, I represented to Plaintiffs' Counsel that I was more than willing to help the injured FTX customers, and we agreed that we would explore a possible resolution, whereby I would: (a) provide proof that I did not have significant, non-exempt assets in light of the quantum of damages sought, available to provide monetary relief to Plaintiffs or the Class, in the event they obtained a judgment against me in this Action, and (b) provide non-privileged information and assistance that could benefit the harmed customers in terms of seeking out and obtaining possible recoveries. After reviewing all the applicable facts and evidence, Plaintiff's Counsel confirmed that Plaintiffs and the Class would seek preliminary (and then final) approval by the Court, of a proposed class-wide settlement and resolution of the claims against me.

19. I have been very careful not to provide Plaintiffs, and the Class, with any information that could ever be considered as covered by the attorney-client privilege and/or any other potentially applicable privilege or protection.

IV. FTX's Miami Office and Miami-Based Business Activities

20. FTX maintained an office in Miami, Florida, since early 2021, long before we eventually moved FTX's Domestic headquarters to Brickell in late 2022. Since early 2021, our Miami office was run by Mr. Avinash Dabir, who originally worked for Blockfolio, which FTX later acquired, and eventually became FTX's Vice President of Business Development. I met with Mr. Dabir often and I am very familiar with him and his activities.

21. Mr. Dabir, operated from our Miami office, and he was focused on formulating and executing our important FTX celebrity partnerships. Mr. Dabir had a lot of prior experience working with some of the major sports industries, including the NBA.

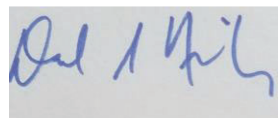
22. It is my opinion that Mr. Dabir was very good at his job, and it was his idea to expend significant resources on FTX's sports and celebrity-based partnerships. Mr. Dabir specifically started by suggesting FTX form a Partnership with the Miami Heat and the naming rights to the Miami Arena. FTX announced the Partnership in March 2021, and included FTX purchasing the naming rights of the Miami Heat stadium for 19 years in a deal worth approximately $135 million.

23. The naming of the "FTX Arena" served an important centerpiece for our efforts to reach other FTX partnerships with celebrities and other well-known partners. Mr. Dabir was the senior FTX executive responsible for creating, consummating, and implementing deals between FTX and other Partners, such as Major League Baseball, the MLB Umpire's Association, TSM, the Mercedes Formula 1 team, Tom Brady, Stephen Curry, the Golden State Warriors, Naomi Osaka, Larry David, and Shohei Ohtani.

24. Having Larry David agree to conduct a commercial for FTX during the 2022 Super Bowl was a very big event for FTX because, to my knowledge, it was the first time that he had ever agreed to serve as a spokesperson for any product. Mr. Dabir deserves much of the credit for creating that idea and concept and collaborating with Mr. David and his team, resulting in the award-winning Super Bowl FTX commercial that aired with the Super Bowl in 2022.

25. If called upon to testify, I would testify competently to the facts set out in this Declaration. I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Dated: May 7, 2023



Daniel Friedberg

Exhibit B

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF FLORIDA
MDL No. 3076
CASE NO. 1:23-md-03076-KMM

IN RE:

FTX Cryptocurrency Exchange Collapse MDL Litigation

THIS DOCUMENT RELATES TO:

All Cases

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DECLARATION OF NISHAD SINGH

I, Nishad Singh, under penalty of perjury, declares as follows:

1. I am a citizen and permanent resident of the United States. I am over 18 and competent to make this Declaration. I am personally knowledgeable of the matters set forth in this Declaration and, if called upon to do so, I could and would competently testify to the following facts set forth below.

2. In or around December 2017, I began working at Alameda Research, LLC ("Alameda") as a software engineer writing code to build out or improve Alameda's trading systems for its internal traders' usage. In or around April 2019, at the request of Sam Bankman-Fried ("SBF") and Gary Wang, I also began contributing as a software engineer to the FTX Trading Ltd. ("FTX Trading") platform. There, I was writing code not to build out internal trading systems but, instead, to build out the FTX Trading website to allow its customers to trade on the platform or exchange. SBF and Mr. Wang co-founded and co-owned both Alameda and FTX Trading, and SBF served as CEO of both entities at that time.[1] As of late 2021 and until its collapse, I owned a roughly 6 or 7 percent equity stake in FTX Trading. Throughout my tenure at Alameda and FTX

[1] SBF separately founded and owned West Realm Shires, Inc. ("FTX US") and other affiliates (collectively, along with FTX Trading, "FTX").

Trading, I worked under SBF and Mr. Wang's direction or instruction.

3. In early to mid-2020, I ceased working for Alameda and instead worked only at FTX Trading. I eventually became the head of engineering at FTX Trading, at which time I was responsible for coding, other aspects of FTX's platform, and managing junior members of the engineering team. Mr. Wang served as FTX Trading's chief technology officer; his role was similar to mine in that we both wrote code, but Mr. Wang served as my supervisor.

4. Although, unlike Mr. Wang and I, SBF did not actually write code for FTX Trading, he was the main architect or visionary in designing how the systems—and therefore the coding underlying such systems—would work. One example of a system that SBF designed is the FTX Trading margin and liquidation system, which considered each customer's balances and decided based on such balance the extent to which the customer could trade or whether instead they should be foreclosed from trading in order to prevent losses. SBF generally supervised and instructed Mr. Wang at FTX Trading, but SBF would frequently defer to Mr. Wang on the more technical aspects of FTX Trading's coding. In his role as CEO of FTX Trading, SBF was in charge of all other business decisions, including but not limited to fundraising from investors, marketing and publicity, and management of other departments. For the most part, I was not involved in these areas of the business.

5. When I joined Alameda in 2017, it was headquartered in Berkeley, California, and I worked out of the Berkeley office. In 2019, Alameda moved its headquarters to Hong Kong. SBF and Mr. Wang started developing FTX in late 2018, also based out of Hong Kong. I visited Hong Kong to work a few times in 2019, and I relocated there permanently in early 2020. In late 2021, at SBF's request and as FTX Trading and Alameda moved their headquarters to the Bahamas, I relocated to the Bahamas. While in the Bahamas, I lived with SBF and a group of other FTX employees in the penthouse at The Albany ("Albany").

6. During the period in which I was living abroad—first in Hong Kong and then in the Bahamas—I made a handful of trips to the United States. I visited California at least once to work from FTX US's San Francisco office, where I spent time with other FTX software engineers.

I also visited the Chicago office at least twice, where I also worked with other FTX software engineers. Finally, I visited Miami at least once, where I worked with other FTX software engineers and looked at office space that FTX US's Miami headquarters would expand into.

7. On February 28, 2023, I waived Indictment by the U.S. Attorney, consented to the filing of a Superseding Information, and pleaded guilty to six criminal offenses arising from the collapse of FTX, including wire fraud, conspiracy to commit wire fraud, conspiracy to commit securities fraud and commodities fraud, conspiracy to commit money laundering, and violations of campaign finance laws, arising from a scheme to defraud customers of FTX.

8. In connection with my plea, I entered into an agreement with the United States Attorney for the Southern District of New York (the "US Attorney") pursuant to which I agreed to cooperate with, and provide information to, the US Attorney, which had by that point initiated a prosecution of SBF on twelve criminal counts, including fraud, conspiracy, and other crimes relating to FTX's collapse.

9. On June 15, 2022, Judge Lewis Kaplan bifurcated the criminal charges against SBF, with the securities fraud, wire fraud, and money laundering-related charges to be tried in October 2023, and the other charges to be tried in March 2024 (the "March 2024 Trial"). On December 29, 2023, the U.S. Attorney informed Judge Kaplan that he did not plan to proceed with the March 2024 trial.

10. After the dismissal of the charges to be tried at the March 2024 trial, my attorneys promptly finalized the terms of a settlement stipulation with attorneys for Plaintiffs and class members, and on February 2, 2024, I sat for an initial proffer session with attorneys representing Plaintiffs and class members in this multidistrict litigation. I have agreed to sit for additional proffer sessions and to provide other information to Plaintiffs and class members in this case.

FTX's and Alameda's Operations in the United States

11. When I joined Alameda, it was headquartered in Berkeley, California. Although Alameda moved its headquarters to Hong Kong in 2019, it maintained at least one office in California through the collapse of FTX in November 2022 (whether a standalone office, or within

FTX's office).

12. FTX US maintained multiple offices in the United States, including but not limited to locations in Miami, San Francisco, Chicago, and New York. Certain FTX US employees also occasionally worked out of Alameda's Berkeley office.

13. At the time of FTX US's acquisition of Blockfolio in mid-to-late 2020, it gained employee Mr. Avinash Dabir, along with other then-Blockfolio employees. Mr. Dabir and certain other Blockfolio employees became based at least in part in Miami. From 2021 until FTX's collapse, Mr. Dabir executed some of FTX's various publicity campaigns from a Miami office. Mr. Dabir worked with other FTX and FTX US employees that did the same, some also based out of Miami. These campaigns included FTX's many celebrity partnerships, as well as its partnership with the Miami Heat and correlative purchase of the naming rights to the Miami Heat stadium, which became FTX Arena. FTX US had at least two front-row seats and a suite for Miami Heat games at the FTX Arena, which I was informed FTX US took efforts to fill with business partners.

14. In mid-to-late 2021, FTX US acquired LedgerX and subsequently rebranded it as FTX US Derivatives. Mr. Dexter, previously the Chief Executive Officer of LedgerX, continued as the CEO of FTX US Derivatives after the LedgerX acquisition and rename. In 2022, Mr. Dexter and FTX US Derivatives Chief Technology Officer Brandon Kotara were living in Miami.

15. Mr. Dexter directed the efforts to start up FTX US Derivatives' futures trading. He worked frequently with SBF on his political efforts with elected officials and/or regulators, and he often traveled to Washington, D.C. as a result. It was apparent to me that one of the most promising or valuable pieces of FTX US was FTX US Derivatives and, more specifically, its ability to engage in futures trading. I believe the advantages that such licenses and technology lent to FTX US Derivatives (and, by extension, FTX US) were notable, and they would have added value to any investment in FTX US.

16. Several of FTX's payments team members were likewise based in the greater Miami area, including Jessica Moser, Balaji Mudaliyar, and Oscar Messina Jr. These employees worked in their capacity as members of the payments team for the benefit of both FTX Trading

and FTX US. This payments team was working towards providing multiple deposit and withdrawal options for FTX and FTX US customers to manage their fiat currency. Among other means, it achieved this by partnering with Visa to issue credit cards that allowed FTX US customers to effectively withdraw funds on the platform.

17. In September 2022, SBF announced to the company over video conference that the Miami office would become the official FTX US headquarters, and that it would close its other offices in favor of the Miami location. This selection of Miami occurred for many reasons, including a desire to consolidate operations in the United States, FTX US employees' preference for Miami for such consolidation, Miami's close proximity to the Bahamas and ease of travel between the two locales, Mr. Dexter's stature within FTX US, SBF's relationship with Miami mayor Francis Suarez, Miami's status as an informal "crypto hub," and the rebranding of the Miami Heat arena as FTX Arena. In the following days, at least twenty-one employees not already located in Miami indicated they would move to Miami soon. Others indicated they would spend the majority of their time in Miami. FTX US selected a new, bigger office space in Miami to expand into as part of the relocation of its official headquarters.

18. Even though FTX Trading was not based in the United States, at least one of SBF and Ramnik Arora, FTX Trading's head of product, traveled to the United States, on average, roughly every other week to meet with business partners, including investors. I specifically recall that these trips often took them to, at a minimum, Washington, D.C., New York, and Miami.

19. Despite Mr. Arora's title, he often focused on FTX's fundraising efforts from venture capitalist investors, which alone could have constituted a full-time job for him. I generally understood that the due diligence process investors undertook in connection with any investment in FTX was arduous. I recall learning from Mr. Arora that Temasek, in particular, engaged in an especially long due diligence investigation of FTX prior to its investment: one that lasted for several months. I recall once discussing with Mr. Arora how Temasek was among the most demanding investors for due diligence despite being set up to receive the best terms from FTX for its investment that round. Mr. Arora informed me that his counterpart at the Temasek team had at

times grown frustrated with the extent of the due diligence that his firm demanded prior to the FTX investment.

20. Other senior FTX employees, such as Ryan Salame and Dan Friedberg, traveled back and forth between the U.S. and the Bahamas, though not quite as often as SBF or Mr. Arora. Both FTX Trading and Alameda, even after its headquarters moved away from its Berkeley roots, maintained employees throughout the U.S. in Chicago, Miami, California, Washington D.C., and New York.

Venture Capitalist Investors Visited the Bahamas

21. From time to time, FTX investors would visit the FTX offices and socialize with FTX employees at FTX's office and Albany. For example, I recall Michelle Fradin of Sequoia Capital visiting FTX in the Bahamas on a number of occasions. From my observations, she spoke primarily with SBF, and she also socialized with SBF and other FTX employees at Albany.

22. I also recall that approximately five Sino Global Capital employees worked out of the FTX offices in the Bahamas. They did not have their own separate walled-off space within the FTX offices, but were working amongst FTX employees and shared with those employees common spaces such as the office kitchen, restrooms, etc. They, like I and several other FTX employees, also lived at or frequently visited Albany while they were working from the FTX offices.

Alameda-Funded Political Contributions in the United Sates

23. I allowed other staff at Alameda/FTX to use my bank account to make political donations to candidates and organizations in the United States. Some of these donations were made to recipients in Florida, including to Moving Broward Forward PAC, Lois Frankel for Congress, Castor for Congress, and Athena PAC, and some were made to recipients in California, including Matsui for Congress and Anna Eshoo for Congress. *See* GX-1090.

24. The funds for many of these donations originated from Alameda. I now understand that one of the accounts Alameda sent these funds from was its account at Silvergate Bank, located in California. In these instances, the funds flowed from Alameda's Silvergate account, through

my personal bank account at Prime Trust Bank in Nevada, before transfer to the candidates, their campaigns, and/or political action committees.

I, Nishad Singh, declare under the penalty of perjury that the foregoing is true and correct.

Executed on February 16, 2024.

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Nishad Singh

Exhibit C

GoTranscript

Joe: What's up, everyone? I'm Joe Pompliano, and this is *The Joe Pomp Show*. Today's episode is with Avi Dabir, Vice President of Business Development at FTX. Avi has spent the last few years working on sports partnerships with organizations all around the world. FTX has spent more than $500 million on partnerships with the Miami Heat, Major League Baseball, and Mercedes Formula One team, as well as equity-based partnerships with athletes like Tom Brady, Stephen Curry, Naomi Osaka, and Shohei Otani.

Avi joined us in the studio this week, so my brothers and I had some **[00:00:30]** fun asking him exactly how these deals are negotiated, what it's like working with Tom Brady, how their Super Bowl commercial with Larry David came together, and what might be next for FTX. This was an awesome conversation and I hope you guys enjoy it. But before we get into it, let's quickly run through today's sponsors.

This episode is brought to you by Whoop. Whoop is a 24/7 personalized fitness wearable that's here to help you improve your recovery, sleep, fitness, and health. It's the one tech product that I wear 24/7. Here's how it works. Each day when you get up, **[00:01:00]** Whoop gives you a recovery score based on your sleep, resting heart rate, respiratory rate, and heart rate variability.

Your score lets you know how to approach your day, whether you should push yourself during your workout or activity, or if you should skip the gym and take a rest day. You wear your Whoop on your wrist, bicep, or now within one of their new smart clothing garments called Whoop Body. The band connects with an app on your phone and it automatically measures your heart rate, calories, and activity levels throughout the day.

The band also automatically detects and classifies your workouts, so there's never **[00:01:30]** an issue in forgetting to press go on a run anymore. You can then analyze your activity level in the app. There's also a ton of coaching features within it like Strain Coach, which gives you target workout exertion goals tailored to your body's recovery level for that day. Those goals change over the course of the day depending on how active you've been.

That coaching is where Whoop really shines. Whether you're interested in how CBD or alcohol impacts your sleep and recovery, where you're just wondering how long of a run you should go on. Whoop is there to provide you with personalized data to make sure you're aware of the impact **[00:02:00]** these decisions have on your body. And Whoop is now offering 15% off their new Whoop 4.0 right now with the code Joe at Checkout.

Go to Whoop W-H-O-O-P.com. Enter Joe, J-O-E at Checkout to save 15%. Sleep better, recover faster, train smarter, and now feel healthier with Whoop. Next up is Athletic Brewing. When it comes to non-alcoholic beers, Athletic Brewing change the game. Their beer tastes amazing. **[00:02:30]** And since each can is only 25 calories, 5 carbs, and made with organic grains, I can now enjoy the taste of a great beer without compromising my sleep or performance.

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But here's the best part, Athletic Brewing is now offering my listeners 20% off their first order with code Joe 20. That's J-O-E 2-0. So as you prepare to stock the fridge from Arch Madness, now's the perfect time to buy a refreshing, great-tasting beer without the consequences. Next up is Underdog Fantasy. **[00:03:00]** My friends at Underdog Fantasy have a contest on their app right now that no one else is doing. It's called the Dance and it's open from now until April 16th, right before the NBA playoffs start. With $200,000 in total prizes and $30,000 awarded to first place, now is the time to draft your perfect team for the NBA playoffs. Pick players from teams you think will make the Conference finals and NBA finals and you'll have a shot at winning big money by the time the playoffs wrap up. Just go to underdogfantasy.com or download their app in the app store. Sign up with promo code POMP, P-O-M-P, and **[00:03:30]** Underdog will double your first deposit up to $100. The Dance is only $10 to enter, so download the app, try it out. Take your shot at $30,000 in the Dance on Underdog Fantasy today. All right, let's get into this episode.

Avinash: Joe Pompliano runs Pomp Investments. All views of Joe Pompliano and his guests are solely their opinions and do not reflect the opinions of Pomp Investments. You should not treat any opinion by Joe or his guests as a specific inducement to make a particular investment or follow a particular strategy, but only as an expression of his personal opinion. This **[00:04:00]** podcast is for informational purposes only.

Joe: We got a special treat today. Avi from FTX has joined us. Avi, how are you?

Avinash: Doing well, guys. Thanks for having me here. Nice to meet you, Anthony, Joe, John, right? I got that right?

Joe: [crosstalk] Yeah, that was pretty good. [laughs] You're good to go, you're good to go. So what-what is your exact role at FTX?

Avinash: So I'm Vice President of Business Development at FTX, so I handle a lot of our sports partnerships as well as doing some of the interesting things in real estate as well. But the end goal is really just how do we take this great platform we have at FTX and **[00:04:30]** acquire more users and also provide more benefits to-to businesses, whoever that might be.

Joe: All right. So the real estate part sounds interesting. So let's-

[laughter]

-let's-let-let's start with sports maybe first.

Avinash: Sure, sure.

Joe: So in my mind, you guys have been like the leaders in this category, right? Everyone laughs now. Crypto is all over the sports industry, whether it's leagues, teams, individuals, whatever. But you guys really started this. It started with Miami Heat Arena here, and you've done a bunch of other deals since. What is the thought process originally behind your involvement within sports specifically?

GoTranscript

Avinash: Yeah, I-I mean, **[00:05:00]** so much of what happens at FTX is just, you know, Sam creates like such an op-- and Brett, the president of our US business, just creates such an open environment for people to just throw out like crazy ideas, right? And-and I think you want that at any company, especially when it's young and it's growing. And, you know, the-the way it-it really started for us is we were on a company all-hands call and a bunch of people were just throwing out ideas and someone threw out the idea of, "Oh, we should do like an arena."

And-and, you know, I had previously worked at the NBA, and so I was-- kind of like raised my hand. I **[00:05:30]** was like, "Okay, cool. Like I can-- I can look into this." This was in January, 2020. And then like, you know, I started looking into it, starting getting some more momentum just internally as well. People are like, "Oh, okay, this is cool. Let's do this." Talking to a handful of teams and cities, right? Because the governments-- local governments are involved as well.

And we kind of identified Miami as like, "Oh, this is really interesting," you know, great market, super like-like multicultural, great team. And this **[00:06:00]** was also around the time where like Crypto Buzz was like growing here in Miami. And then, you know, honestly, three months later things just kind of snowballed. And we had this arena like it happened so fast. Tons of credit to Miami-Dade County and Mayor Cava and her staff like to get comfortable with crypto. Like it wasn't easy. No one had really done crypto deals. So--

Joel: So how-- so let's stop there for a second. Like, how does this deal actually work? Miami, the-the Heat deal specifically, right?

Avinash: Yeah.

Joel: Because I think that the arena, I don't know if it had been like a vacant name sponsor for a couple years, I believe, **[00:06:30]** right?

Avinash: Yep.

Joel: But like how does this work? How do you approach them? How does it get negotiated? All that type of stuff.

Avinash: Yeah. You know- you know your history. So American Airlines I think was a vacant partner for the last two years. Right. And-and--

Joel: What does that mean? Vacant partner?

Avinash: So-so-so their deal ended and for two years, they technically didn't have a naming rights partner, but they left the signage up, right? Because-

Joel: It costs money.

Avinash: - **[unintelligible 00:06:49]** costs money to take it all down too, right? So there's--

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GoTranscript

Joel: And they hadn't sold the name yet. [crosstalk]

Avinash: They hadn't sold the name. So they didn't have a new partner. And I think this is public, but I think there's the-the county also, there's **[00:07:00]** some stipulation in their agreement with the Heat where they may owe some funds or some services in exchange if there's no naming rights partner, right? So they really wanted to get a new partner. And-and we kind of came in at the right time.

And, you know, you kind of add on the fact that this was during COVID where, you know, a decent amount of live event businesses were-were short on revenue. I think kind of opened up the door, right? And that sort of opened up the door where we could have the conversation with-with Mayor Cava and Miami-Dade County as well as **[00:07:30]** the Heat. And then they spent a lot of time getting comfortable with our business.

It required a lot of just financial due diligence, a lot of education, and they took the time to learn. Honestly, that's why I give 'em a ton of credit for that. And to get approval from a local government, plus the Heat and the NBA who had their own diligence teams looking into this really sort of validated not only just FTX but the cryptocurrency industry in general. And-and things kind of just snowballed from there, right.

Joe: And on the due **[00:08:00]** diligence piece, I think, I remember seeing a quote from Sam that was like, you know, they questioned if Crypto was gonna be around in years and if he was gonna be able to pay for these things. And he was like, not to sound completely absurd, but we could pay for it today if we needed to. Is that part of the process? You're like, just look how much money we have on our balance sheet, like it's not a problem.

Avinash: I mean- I mean they-they have our financials, right?

Joel: Yeah.

Avinash: And we did disclose that and share that and confidentially, you know, and there are ways to structure these deals in a way where, you know, you can front load some of the funds, right, to-to provide some more comfort and the **[00:08:30]** deal is public, right? So anyone can really go and look up what the deal terms are with the county.

Joel: And why do you think that they sat for two years without a sponsor?

Avinash: That's a good question. You know, sort of all that predates really my involvement and-and really, I don't even know if FTX was really in a position where we could acquire an arena at that point. But I think it could be a multitude of reasons. You know, American Airlines, airline businesses probably took a little bit of a hit during-during COVID. That could be one reason. I'm just purely **[00:09:00]** speculating here. I have no--

Joe: What-what is the, like, once you go ahead and you get the naming rights, what else comes with it? Cause I- I see that there's usually people FTX-related courtside. I see, "I went to the game on Monday night" and all of a sudden, they have like 16 kids basically like run out. They're doing the half-court shot of kids--

Avinash: Crypto chaos.

Joe: Yeah. Kid hits. It goes wild. I'm like, "What just happened?" And all of a sudden it pops up like $5,000 in crypto. Like, oh, that kid about to go party his face off.

Participant: Well, we went to the season opener too, and I think you guys gave, uh, it was like $500 to every person in a specific **[00:09:30]** section if they downloaded the app, right?

Joe: Yep.

Participant: I'm assuming there's a bunch of apps--

Joe: Yes, like how does this work? Or like what are some of the things you guys are doing inside of the state other than just the naming rights?

Avinash: Yeah. Uh, great question. So-so there's really- there's really two deals. Like, there's one with the county, which is the naming rights, and then there's a- a marketing partnership with the Heat who help activate the arena space.

Joe: Got it. So the Heat are responsible for what happens in the game?

Avinash: Related to the Miami Heat? Yes, correct. Yeah, I mean part of it is hospitality, right? Where you entertain gas, you know, we could do giveaways and whatnot for, uh, win a ticket to a Heat game, uh, things of that nature. Every game we have a lucky seat and lucky row where we give away cryptocurrency, uh, for downloading the app to the people in those spaces. And now, we've recently added crypto chaos, which is like, I dunno if you guys are, remember that game, like Knockout. It's kind of a knockout-ish.

Joe: Yes. They're playing.

Avinash: Yeah. Like everyone was just, he even half shots.

Joe: It was- it was chaos.

[laughter]

It's good. $5,000, $5,000, $5,000. [laughs]

Avinash: It's so- it's so fun. I mean, it's one of the most, like, I-I love that part of the game, right? Because the whole arena is cheering for these people to-to make this shot. So we've added that element to it. You know, we also have a partnership where we're able to sort of leverage Heat assets and whether that be like in social

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media promotions. We did an NFT drop recently with-with the Miami Heat around the mashup jersey.

So really excited about that. There's a space called the FTX Token Lounge, which we've actually created and turned it into an NFT gallery. It's a way for people to enter into the arena. We just launched that like a week ago. We'd love to have you guys come by at some point. We got LED screens, you know, we got some printouts on the- on the hallway entering in. But really just trying to meet the fans where they're kind of already at through cryptocurrency, NFTs, and blockchain technology rather than try and like force it on them.

Joe: How do you measure success? Like, all right, so you guys go spend this money, it's obviously cool, people see it, you know, on the screens, whatever. Do you guys measure like, "Hey, how much do we get from downloads or volume?" Or is it just like, we think it works and let's figure it out? Like what-what do you do?

Avinash: Yeah, I think there's- there's multiple pieces to like how you measure success here. You know, one, like the obvious one is straight-up conversion, right? How many people in Florida download the app or around the Miami area, download the app, register, deposit, trade, you know, it's that standard sort of funnel that's very easily to track. But there's this intangible element that's a little bit harder to- to quantify and right. And that's just generally like when I go have a conversation with- with a real estate **[00:12:00]** developer and they're like, that conversation's just easier because they've seen FTX at the arena.

Joe: It's Legitimacy as well.

Avinash: Yeah. It's trust. It-it's-it's, you know, legitimacy, same thing when it comes to any of our-our team's business development endeavors, right? If you're a trader that's at an institution and like, oh, cool, like I've already heard of FTX because of FTX Arena, or I saw your Super Bowl spot with-with Larry David or the MLB umpire patch. Like it's just building trust and value through brand association, but we have **[00:12:30]** to deliver on that trust and value. Like that opens up the door, but you know, we need to help them step through that door and then make sure they have a good time when they're in the room with it.

Joe: I'm assuming that's more off of feel than it is actual numbers, right? That's probably pretty difficult to quantify.

Avinash: Totally. It-it's, and you know, we see it because, you know, we hear people be like, "Oh, I love your Super Bowl commercial, or, you know, I had a great time at the Heat game, you know, last night, or I can't help but see the FTX on the MLB patch, like every ti-- every **[00:13:00]** pitch." All the staff.

Joe: How did the Larry David commercial come together? Like, obviously I have a theory, but I want to hear kind of how you guys came up with that and how that came together.

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Avinash: Yeah, I mean, so-so there's a really good article written. I-I can't remember the publication. It might be the Times, but I-I don't--

Joe: It's probably the best business show.

Avinash: Yeah.

[laughter]

That's right. Uh, the best business show. I think-I think they had the best theory on it.

[laughter]

But, you know, we-we have some really good agency partners that are super creative, and we also have some great folks **[00:13:30]** internally on the marketing side. They're just great at like, explaining what FTX wants and what FTX really wants is like, we're trying to just be playful, inviting, and just like, "Hey, like, we're here when you're ready." Like, that is our very much, our approach to sort of doing our marketing and advertising. And Daniel on our marketing team is-is a super key component of our brand messaging. And, you know, another, uh, colleague of mine, Cena--

Joe: Both Fantastic.

Avinash: Yeah, both-both great guys, super smart **[00:14:00]** and just really get our brand, and, you know, they really spearheaded that and pulling the right people and teams together, you know, and then when we- when we saw the script, we were like, this script is awesome. And then-then we're like, "We have to get Larry David, right?" And then, you know, the teams went to work to try, and I don't know if that commercial works, if it's not Larry David, right?

Joe: Yeah, yeah, yeah.

Avinash: And-and just small sort of teaser, Sam's dad is-is also in that commercial. Uh--

Joe: Really?

Avinash: Yeah-yeah. It's a little-little **[unintelligible 00:14:24]**

Joe: That's amazing. I didn't know that. [chuckles] Yeah. Well, Sam's dad is very involved with-- I think it's a foundation? **[00:14:30]**

Avinash: Yep.

Joe: There's a pretty big philanthropic effort that's going on.

Avinash: A 100% We recently had just had a FTX foundation hackathon at the FTX Arena where we-we gave away-- well we awarded a million dollars in pricing for high school students that were building businesses in sort of like the-the tech space. So

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we're really excited about that and Joe Bankman leads a lot of that for us, uh, as well as we have a lot of other initiatives around climate and that the foundation is super focused on-on just the whole idea of effective altruism and, **[00:15:00]** you know, making the world a better place.

Joe: What's going on with F1 Mercedes? You guys I know sponsored the team.

Avinash: Oh, man, uh, I-I love F1, right? Like, you know, drive to survive has gotten so many of-of us Americans like pulled into the sport and-and it really is a team sport all the way from like engineering these cars to executing on-on race day. So we are a Mercedes Formula One partner, they've been awesome. This year has been pretty interesting so far. Last year was, you know, I'm biased, but you know, I didn't agree with the results. **[00:15:30]**

Joe: Lewis Hamilton didn't either.

[laughter]

Avinash: But the guy's a true professional man.

Joe: Yeah.

Avinash: Like the fact that he's back in-in that seat and ready to go again is super impressive but we're planning to have a pretty big event here in Miami for the Miami Grand Prix, that's May 6th through 8th. We'll be announcing that pretty shortly, but expecting a lot of people to come through, doing a lot of activations around just other Mercedes partners, our partners involved like just try to bring together a whole community of people **[00:16:00]** building cool things together to celebrate that all and it's gonna be big. I-I wish I could share more details.

Joe: How much money have you guys spent on marketing?

Avinash: Oh, that's a good question.

Joe: Um, like just ballpark. Are we talking 500 million, a billion?

Avinash: Well-well, some of these deal-- like--

Joe: Let's do committed, right? Yeah, they-they're multi-year deals, right?

Avinash: Right-right.

Joe: Committed.

Avinash: I'd say, I'd say over 500.

Joe: Yeah. Over 500 million, you-you-- have you crossed over a billion you think?

Avinash: I-I don't know. I-I-I don't think so.

Joe: Yeah, because what the-the arena deal **[00:16:30]** is how much?

Avinash: In total, like if you consider the Heat and the arena portion of it, like close to 200.

Joe: Yeah.

Avinash: So that's 200 of-- at least 500.

Joe: And-and that's a 19-year deal, you know, so we're committed.

Avinash: Yeah-yeah, part-part of this is when you do the committed, you could look at this, it could be over 20 years, literally.

Joe: Right. But, so $500 million is a huge commitment. What was the major league baseball? Is the umms a one-off or is it part of a bigger deal?

Avinash: It's part of a bigger deal. So we have a lot of other components that, you know, the-the patch **[00:17:00]** is so visible, right which we love, but there's so many other components to it. Last season we had this campaign called Moon Blasts, so every time someone hit a home run over certain, I think it was 400 or 425 feet, then it was considered a moon blast and so that was branded on social media, FTX Moon Blast like so there's that entire element of it, we have some additional--

Joe: That's a very FTX-type thing to do.

[laughter]

And you had the guy at the playoff?

Avinash: Yeah, we had the-the moon, uh, the Moonman.

Joe: They literally had someone show up with like a costume at the games **[00:17:30]** and he was the Moonman.

Avinash: And we planted him behind the umpire in the stands with this giant head, it was **[inaudible 00:17:35]**

Joe: You can see 'em right in the screen every game, it was amazing. There's moon Boys on Twitter and then there's moon blasts on-in baseball.

[laughter]

So how did the individual deals work, right? Because you've done a bunch of those also with Tom Br-- someone in the chat asked if you personally know Tom Brady? [laughter]

Avinash: I-I personally do not. I've met him, great guy, like excellent smile, um-

Joe: Like great hair, great face.

Avinash: Yeah, some of these **[00:18:00]** people we meet and they just have this like-like gravitas to them, right? Just--

Joe: Yeah.

Avinash: And-and he is that, he's a su-- bonafide superstar, you know, that really came through. So, you know, Cena's a-- he works on a lot of our-our-our partnerships with-with the athletes. He's done a great job with-with really, not just, you know, working with Tom, but Giselle too is also a partner of ours. And so we're looking to do more things with her.

Joe: If you're gonna work with the family, you better work with the richer of the two.

[laughter]

Avinash: Totally. And like, you know, you keep them both involved together, right? And I think that makes the partnership **[00:18:30]** stronger. And, you know, again, credit to them, they're open about learning. Like-like they-they will say, "Hey, I'm comfortable with this. I'm not comfortable with this. Help me learn about this." And-and our team who-who handles those relationships have done a great job with--

Joe: Is Brady a Bitcoiner?

Avinash: He is. Yeah. I mean, you've seen like those videos he's throwing, like there's-there's one video that he made on his own, I mean, his teammate, but he throws a football like into the sky, and he's got like laser eyes on it, and the Bitcoin like comes down. So he's--he's--

Joe: But it's amazing **[00:19:00]** you guys had nothing to do with that video. [laughs]

Avinash: Because I-I think that that's what-- those are the partnerships we love, where like, you get them excited about crypto, and then they kind of authentically take it in the direction that they want to take it has been the most successful stuff that we've done.

Joe: How do you guys think about, like, you added, I believe, equity part of Tom Brady's deal. Like how important is that to align incentives with these individual athletes for these marketing deals?

Avinash: Great question. Like-like, these guys have money, right? Like-like-like you kind of kind of figure out like what gets **[00:19:30]** them excited about partnering with you, and he doesn't need another X millions of dollars more, but if he's got an investment in-in something, and they're competitors, right? So like-like in a way, business is competition, right? And he's kind of aligning himself with FTX, which we love, right? And he-he thinks, and-and backs us that-that we're strong competitor. So I think that validates FTX, but also gives him some access to be competitive in the-- in this world that he wants to learn more about and compete in.

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Joe: [00:20:00] What-what about the Stephen Curry? I-I saw that there's a brand new, I guess, commercial or-

Avinash: Yeah.

Joe: -video that you guys put out, and he's like chiseling the ice and-

Avinash: Yeah.

Joe: -uh, I think Shaq does the voiceover-

Avinash: Yeah.

Joe: -and he's like, "Tell Shaq stop playing." Right? Uh, but like when you guys do that type of stuff, how much of that is like they have ideas for the creative versus you guys are like, "Okay, we're gonna do, you know, A, B, C, here's the scenes, you know, you just-

Avinash: Yeah.

Joe: -gotta do your kind of acting role.

Avinash: Yeah, I mean, they're generally so busy, so when it's hard to get their time. So when you have it, like you wanna have a plan as to what you wanna do. **[00:20:30]** So-so we-we have a plan, right? We have a script. We're like, "Hey, here's the theme." You know, we keep them, Steph and his team involved throughout the entire process, because they gotta be comfortable doing it. If it's not authentic to your brand, like they're not gonna do it. I think this last spot, the not a expert spot is-is really authentic to him, 'cause like he's interested in crypto, but doesn't know a ton about it-

Joe: Mm-hmm.

Avinash: -but wants to, right? And that makes it approachable. And I think that aligns with what FTX's sort of ethos. Is it's like, "Hey, **[00:21:00] [00:21:00]** like, we're here when you're ready, or like, come to us to like learn and, you know, you're not alone in this process." Right? Like, you know, Steph, like arguably, you know, the best basketball player on the planet is successful at so many things, but here's something that he is not the best at. But he's willing to admit that and say he wants to learn.

Joe: Try to learn.

Avinash: And come with us on that journey is really important.

Joe: David Schwab did that deal?

Participant: I'm not sure he works at Octagon. So maybe, yeah.

Joe: Yeah, he did.

Participant: All right. Yeah. Look, he-he'll be happy we gave him a little shout-out.

Joe: Here we go.

Participant: David Schwab [laughs]. What else?

Joe: [00:21:30] I was just gonna ask about the real estate stuff. What do you do on the real estate side?

Avinash: Oh, yeah. This-this is my- this is my new sort of like excitement and passion right now.

Joe: We're in.

[laughter]

If you- if you need partners, we're in.

Avinash: Let's-let's talk about this. So we're helping a lot of, um, condo developments specifically here in Miami except cryptocurrency payments for purchases. The first couple that we did is with 11 eleven Residences, which is a PMG property. [crosstalk] Uh, and then also, uh, with the Waldorf Astoria. I'm actually going to a real estate **[00:22:00]** event tonight with the Diesel Wynwood Condominiums in Wynwood. So they're now a partner and we've done a partnership with Paramount as well. And I got off the call before here with another big, uh, real estate firm. Does, like, people just want, like, the interesting thing about right now, it's like, "Hey, let's accept payments for real estate."

And what that really does is, one, you guys know. If you transact in crypto, you're in control. You could do it anytime. You don't have to wait for a wire transfer cutoff, you're in control. And it's just infinitely **[00:22:30]** more seamless. And then plus a lot of people in crypto have made money. So if you give them a way to sort of diversify their assets into a asset class, like real estate, there's value there. And then sort of the third point is like a lot of international buyers really prefer it. It's just easier to move the money.

Joe: Do-do you wear a, uh, a suit and tie when you go to these events? Or you show up in the FTX t-shirt?

Avinash: Uh, I'm a t-shirt guy. I did bring a blazer. I'm not sure if I'm gonna wear, uh, to be honest, like I brought a blazer to work. I'm not sure if I'm gonna wear it or not, but, uh, I just brought it just in case. Like--

Joe: I feel like that's an insurance **[00:23:00]** policy.

Avinash: Yeah.

Joe: Like that may be one of the industries that, and like lawyers.

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Avinash: Yeah.

Joe: Those two together.

Avinash: So I'm-I'm feeling it out like, uh, I'm definitely wearing sneakers [laughs], like forget the dress shoes.

Joe: What's the process like when a company, a traditional like mortgage company or whatever for loans is like, "Hey, we want to start accepting payments in crypto." Like, do you guys just go in and help them set it all up? Like what's the process like?

Avinash: Yeah, totally. It's actually fairly easy. Like we have an agreement, you know, we've sort of templatized at this point. We're just essentially accepting funds crypto **[00:23:30]** and then converting it in real-time to dollars and putting those dollars wherever it needs to go. Whether that's to the seller or to the title company, right?

Joe: Mm-hmm.

Avinash: Like they don't really wanna hold crypto. So it's really the benefit is more so for the buyer, ease of transaction for the buyer.

Joe: How many people actually wanna buy using crypto versus the buildings or the building Managers want to say they accept it, but they don't actually have any anticipation of people actually buying? Like, it's like a-- I've seen them, cool 'cause I accept it, but no one's gonna do it 'cause of the tax ramifications, et cetera.

Avinash: Well, the tax, you have to pay taxes **[00:24:00]** regardless. Right. So I-I don't think that's really a deterrent.

Joe: Well, right now if I buy the building, if I-- let's say I buy a condo and I buy it in cash, I just pay the sales tax or-or whatever.

Avinash: Yeah.

Joe: But if I buy it in crypto, I have to pay the capital gains on top of the sales tax, except like--

Avinash: Correct.

Joe: That's why I always wonder, I've seen a couple of announcements in Miami, which I'm assuming you guys were involved in, where people bought, you know, some are $5 million, some are $20 million type condo purchases in crypto.

Avinash: Yep.

Joe: I'm like, man, are they really paying capital gains tax on doing **[00:24:30]** it? But I guess like if you have a 100% of your assets in crypto, like you have no other choice.

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Avinash: Th-th-that's what I'm saying, like a lot of, like most of them, some are international buyers, so it's just easier to transfer. Some are I, some people would just be YOLO buying condos, right?

Joe: Mm-hmm.

Avinash: Because they-they can, you know, I think today it just starts with-with cryptocurrency payments, but to your point, right? Like, you know, would love to get to a point where, okay, you know, if I have a-a million dollars in-in Bitcoin, like can I take out a mortgage against that, right? So then I don't have to sell my Bitcoin or can I borrow against it in some particular **[00:25:00]** way and, you know, tie that closer to real estate.

I-I think we're gonna get there, it's just a matter of when. Like technically, I think we can get there like tomorrow, but like- but like-like regulatory-wise and just like, you know, smoothing all that stuff over. I think that's-that's really sort of where the hurdle is. And that's a big thing that we're-we're doing at FTX, right? Like Sam and Brett spend a ton of time in DC working with the regulators, like educating them. Like we make sure we have all of our licenses.

So it's just super important for **[00:25:30]** us to-to be up to speed and-and do things the right way. So when we wanna offer these cool, fun products that people are kind of used to already, but now put a crypto spin on it, I think is gonna be really interesting.

Joe: How have those conversations with DC and everything changed over the last year?

Avinash: You know, I'm not personally involved in them, but like, just from like the outside, I-I think they've gone really, really well. And so much of that is just cause like you guys know, right? Like one, okay, you hear about Bitcoin or you hear about any cryptocurrency, but then you like, put a **[00:26:00]** little skin in the game, whether it's like a $100, $1,000 or whatever, then you start like paying attention to it more and you learn more and you see the use cases. And I think it's just, uh, the time and the effort that's been spent has really moved things forward. And I only see like, it's just gonna trend upward.

Joe: Well, it sounds too like when you guys first started doing these partnerships, take the Miami Heat for example, they were questioning maybe is not the right word, but interested to see if this industry was gonna be here in a decade, right?

Avinash: Yeah.

Joe: And asking the right questions and now it's, people are coming to you guys to do partnerships, I'm sure, right? **[00:26:30]**

Avinash: Yeah, 100%. Like, you know, our inboxes are flooded, like, you know, people know we've spent a-a little bit of money on-on some sponsorships, so, you know, we see a lot of interesting things.

Joe: What's the- what's the craziest thing someone's asked you guys to do?

Avinash: I saw like-like a Canadian, like, curling team was like super, just like wacky and just like out there, one of my favorite ones that we've done is, uh, we wrote the Fortunes for Fortune Cookies. So a few-- and-and I-I forget how many we, but they're all over the US. So if you, **[00:27:00]** like, you know, you get a fortune cookie from one of these restaurants, it'll say FTX on the back, and Alec, the guy who runs-

Joe: Who runs our Fortune cookie business?

[laughter]

How much is a fortune cookie?

Avinash: He-he's our-he's our-he runs our Twitter handles, he wrote most of the fortunes.

Joe: No way.

Avinash: Um, so like you-

Joe: Shout on Alec.

[laughter]

That's amazing.

Avinash: And they're really-they're really witty, he did-he did a great job.

Joe: Like what- so like, take that for example, right?

Avinash: Yeah.

Joe: Because I think a lot of people like, what do you mean, whatever, is it just a branding exercise or like, is there like a QR code that people can scan and then--

Avinash: Yeah, it's just a branding, **[00:27:30]** you know, you, you know, you-you ordered like an Asian meal and, you know, you're done with a meal, you-you crack open the fortune cookie and, you know, you see an FTX logo and it's like some witty, just like fortune around, it's-it's all crypto related fortunes.

Joe: Got it. Got it.

Avinash: Like blockchain and crypto-related fortunes.

Joe: And so when you do that, I'm assuming that there's some kind of analysis on like, "Hey, we're arbing the potential eyeballs that are gonna look at this versus like what it costs", and I always wonder if you were to unleash, you know, like intelligent **[00:28:00]** quantitative people on marketing, which I'll put FTXs as, you know, a leader here, it seems like that's really what you guys are doing, right? You're trying to

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figure out like what are all the mispriced marketing opportunities in the market and then you go and you just attack those and you're not scared to kind of do it with conviction.

Avinash: For sure, that's like, at a high level, that is what it is like what's sort of like mispriced, I mean maybe things, I think sports partnerships now are less mispriced for crypto. Like, 'cause like everything's been bid up, but when we got into it, I think it was mispriced-- not mispriced, that's like a-- **[00:28:30]** it was just like, there was an opportunity, like there was value there.

Joe: Yeah. I just got a text from someone. They said, "Hey, man, I'm watching this show and I can say that I've had a few of those FTX fortune

Cookies from our favorite Chinese place in Chicago.

[laughter]

The branding Chicago.

Avinash: Exactly right. And-and people-people tweet them out. So there's like this just natural like good vibe feeling that comes with that, right?

Joe: Yeah.

Avinash: And-and you, some of that's not quantifiable, right? But someone cracks that open, sees FTX, feels good about it like maybe they think differently **[00:29:00]** about the--

Joe: If I got that, you know what I would think? I'm like, these guys are everywhere. They're literally infiltrating the fortune cookie industry. I saw Sam at one point was like, I think he was joking, but he was like, ah, maybe at some point we should like start doing things 'cause like the rest of the industry will do it as well and like throw 'em off our scent. Yeah, he's like, "I'm gonna lose money on purpose", I think is what he said.

[crosstalk]

Participant: They're one of the fortune cookies up right now, it says, in retrospect it was inevitable.

[laughter]

Joe: When-when you guys think about-- like have you guys ever actually considered like trying to fake out everyone else and like do something that would, **[00:29:30]** you guys put a little bit of money lose on purpose and then let everyone else go spend all their money?

Avinash: I mean, there's definitely some-some games-gamesmanship.

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[crosstalk]

There's some gamesmanship that goes along with-with, you know, anytime there's a counterparty involved.

Joe: Yeah.

Avinash: Right. So--

Joe: So the fortune cookies or the money-losing one?

Avinash: No, I mean, it's-it's-it's hard to, like I wouldn't, honestly, I think that's-that one's been like, you know-

Participant: I actually think that was really smart. I actually, that was really smart.

Joe: So like what-what would be, I wanna like just sit here and brainstorm for a second, what would be **[00:30:00]** something that you guys could do, that would throw everyone else off. Like, I feel like the sports stuff--

Avinash: We can't reveal it on air. [laughs]

Joe: Trust me. You could definitely say a lot of stuff-

Avinash: People will steal it.

Joe: [unintelligible 00:30:08] [crosstalk] Follow. No, they're-they're trying to trick us into thinking that it wouldn't work, but it really would work. [laughter] But it feels like, like I saw in Miami, right? There was just ultra, there was a whole bunch of stuff.

Avinash: Yeah.

Joe: And one day I, I was walking and I just saw like 17 planes all pulling like the banners behind them.

Avinash: Yeah.

Joe: And I was like, what are the odds that I can-- won't even see any of those? **[00:30:30]** But also too, like I understand what it means, I remember it and I go and it converts and it's like, it's probably not that much. There's also like those screen that floats-

Avinash: Yep.

Joe: -in-in the water.

Avinash: I see those all the time from my farm.

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Joe: Yeah. And it's like, I've seen it over and over and over again. I probably could remember maybe two of the ads I've seen. But then I went and I looked, how much does this cost? It's like nothing.

Avinash: Yeah.

Joe: Right? It-- it's-it's so inexpensive that I feel like some teams are just like, we might as well do it. And it's just a pure branding exercise that has nothing to do with conversion.

Avinash: Yeah.

Joe: But the cost to the impression number is so **[00:31:00]** skewed that you're just like, screw it, whatever. And for those people, they're making money and so they keep the cost low without, you know, really worrying about trying to price it at the-the high price point.

Avinash: Totally, and it's that-- that's an awareness play, right? Like you're just trying to get people aware of FTX. So then okay, they see, you know, that boat go by and it's an FTX logo or some quick hit about it. They see the plane go by. Oh, FTX. But then when they get to FTX Arena and there's an opportunity to, I don't know, check out with FTX pay or something of that nature, I think, oh cool. Like I've seen that **[00:31:30]** brand twice already. Here's for the third time and this is kind of what they do. Let me now convert, right? So--

Joe: You wanna know what I think you guys should do?

Avinash: Yeah.

Joe: I think you guys should open a bar. If you open a bar in Miami. Cause there's a ton of young people who have started to move here.

Avinash: Yep.

Joe: Right? There's a lot of crypto folks who have moved here, et cetera. But if you make it a fun bar, it then infiltrates into the conversations and what ends up happening is, it's kinda like a club or-or some of this other stuff. Right? It becomes the center of people's social life.

Avinash: Right.

Joe: [00:32:00] And once you do that, like you win.

Participant: Well, you could probably make money doing it too.

[laughter]

[crosstalk]

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Participant: It's like I **[unintelligible 00:32:08]** $500 million **[unintelligible 00:32:09]**.

Joe: Even if you did things like, you know, hey, if, uh, certain times there's like FTX, you know, specific events, but if it literally was just like the FTX bar and it was just fun. It was like genuinely fun to go to and people would go there regardless of what the name was.

Avinash: Right.

Joe: You just infiltrate into the social life and like a bunch of 25-year-old kids, like, where are we gonna go tonight? Like, oh, every Friday we go to FTX bar.

Avinash: Yeah.

Joe: You just immediately **[00:32:30]** become part of the conversation. And it feels like those are the types of things where like the arena when people, they're not thinking, "Hey, I'm marketing FTX, but like, hey, I'm going to FTX Arena."

Avinash: Correct.

Joe: "I'm going to the game." There's other things that you could do that are like that. And I don't know what the legal risks are of, uh--

Avinash: Yeah. Well, you guys wanna open that bar up with us?

Joe: Sure.

Avinash: Like let's-let's do it.

Joe: Sure. [laughs] I-I'm being dead serious.

Avinash: [laughs] No, I'm not saying--

Participant: I've been com-- [crosstalk]

Joe: I'm not gonna run it?

Avinash: I have been complaining too. [laughs]

Joe: Yeah. Well, we'll find someone to operate it. But-- I've been complaining about the bars in Miami too. [laughs]

Avinash: Perfect.

[crosstalk]

Joe: We are not-- We have, uh,-- **[unintelligible 00:32:58]**

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Avinash: If we got to **[unintelligible 00:32:59]** street research? **[00:33:00]** [crosstalk]

Avinash: No, my brother cannot **[unintelligible 00:33:03]** I am out.

Participant: We're not-we're not-we're not interviewing if you're running.

[laughter]

Avinash: If John's the general manager, [crosstalk] I'm out.

Participant: You guys aren't making money.

Avinash: Well, that's the problem.

[laughter]

Joe: Yeah, yeah. I think we may not make money.

Avinash: I know you. You and all your friends will be there all the time.

Joe: Nah.

Avinash: We won't make any money.

Joe: Yeah. My friends will be paying covers to get it.

[laughter] And-and they'll be downloading the FTX. [laughter]

Participant: I love it. I love it.

Joe: Have you guys sponsored college athletes?

Avinash: We have, yes. We've done a couple of teams and a couple of players. Uh, I think we've done the **[00:33:30]** UCLA women's basketball team, a softball team in Florida, Kentucky men's basketball team.

Joe: Yeah.

Avinash: So we experimented in the NIL space. Like, I think it's interesting and there's definitely value in there, especially because so many of these athletes want to build their brand and like they also learn about it, and they're also really good at it, right? They're-they're natively just good at social media. But there are some challenges. And those challenges are just like, you know, they're still- they're still college students, right? Their-their main focus is, **[00:34:00]** you know, going to **[unintelligible 00:34:01]** playing bask-- like playing sports.

[laughter]

Going to class.

GoTranscript

[laughter]

Joe: Let's just call a speed, a spade.

[laughter]

Participant: Play sports and they wanna party. That's what they're trying to do.

Avinash: Yeah. It's like still hard. Like I remember when I was like, you know, 19, 20 when it's, this hard-hard to get people to do things, but some of them are great and-and totally get it. It-- I think there needs to be a little bit more structure in that space and it's gonna come. Uh, and these-- there's some platforms out there that have been really helpful in-in helping sort of put the plan out there. But I think there's a lot of value there once that gets sorted out and figured out.

Joe: Yeah. I-- if you **[00:34:30]** really think about it, if you're like an enterprising, you know, 18 to 22 year old and you're good at your sport, you could make an absolute bag right now. Because there's so much capital that everyone-- it feels like everyone's like, that market's going to be big and I need to get there early.

Participant: Yep.

Joe: And they don't know really kinda what the cost should be. They don't know how effective it is. Like there's a lot of kind of fragmentation. And so if you actually have a big following and you understand business, like you-you probably **[unintelligible 00:34:55]**

Participant: Most people don't have agents either, right? Which is one piece of it. So they're-- [crosstalk]

Joe: Yeah. But they have **[00:35:00]** like somebody looking after their life.

Avinash: Yeah, they got their brother or their mom [laughs] or their--

Participant: But the deal is my point. Is there much less structured, right? They're not-- they're not nearly as.

Joe: Is it worse to call up a college athlete and him be like, okay, I've got an agent that works at, you know, CAA or whatever, or to be like, yeah, my mom handles my deals. Which one- which-which one are you like, Dave? [laughs]

Participant: I-I-I feel like I'd rather deal with the agent.

[laughter]

Right? Yeah. Like, even if I gotta pay extra, its like, [laughs] let's just deal with the agent.

Joe: Like, imagine if our mom was like our agent **[00:35:30]** and she'd be like, "My boys are worth so much more." [laughter]

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Participant: Right?

Joe: Like every mom would be that 100%--

Participant: Jonny need to post this yesterday. Why didn't he post? He'll post it when he wants.

[laughter]

That's literally what would happen.

Avinash: That's great.

Joe: Yeah. It's like, I-I-I don't know, it just feels like when there is fragmentation, sometimes actually the fragmentation's bad. We talk all time about the Miami apartment scene.

Avinash: Yep.

Joe: Is completely different than New York. Like in New York, the landlords are on it. They know exactly what the deal is. There's laws, there's regulations. You can't raise rent too much, like all this stuff. In Miami, multiple friends, we know **[00:36:00]** where they're like, "We're raising rent 30%." And you're like, you can't do this. Like, we can do whatever we want. And you're like, "I wanna go back to the structure."

Avinash: It's free. It's a free for all.

Joe: Yeah. They show you comps. You're like, that's from two towns over.

[laughter]

Avinash: Like, that has nothing to do with my apartment.

Joe: The, uh, the-the one that, uh, I keep seeing on Instagram, there's an apartment in one of the buildings on I-I guess what it is, Brooklyn Avenue.

Avinash: Mm-hmm.

Joe: And it's like a $50 million apartment.

Avinash: Jeez.

Joe: And all these like real estate Instagram accounts, went and took a tour. There's a video that they all **[00:36:30]** keep using and it's got indoor pool, it's got all this stuff and everything. And I always just think of like, the landlords sitting there be like, well, if they're selling $50 million apartment down the street, then my thing is worth, you know, at least a million. [laughs] You're like, that's not how this works. They have an indoor pool. You have a pool on the roof that sometimes is open.

Participant: 100%. Uh, it's-it's-it's a little wacky out there for sure in the real estate market here. And you know, I think doing stuff with crypto and maybe bringing a little bit more transparency through that can be really beneficial. How long have you lived in Miami? Eight months?

Avinash: Eight months.

Participant: [00:37:00] Yeah. Okay, cool.

Avinash: Yeah.

Participant: Where did you come from?

Avinash: So, I'm kind of all around from upstate New York, school in Boston, then San Francisco, Los Angeles, and then now here.

Participant: Oh, smart move.

Avinash: Yeah.

Participant: Yeah

Participant: Yeah. You like it? Are you staying?

Avinash: Yeah-yeah. We love- we love it in Miami. We just bought a house, so.

Participant: Yeah. Smart.

Avinash: It's-it's the, uh, it's a good place. [laughs]

Participant: Things are- things are- things are happening.

Avinash: We went to, uh, we went to LA for the Super Bowl and we were trying to figure out where the 52% of your income was going.

[laughter]

Joe: We thought they'd be flying cars. We thought, you know, the weather's great, **[00:37:30]** don't get me wrong.

Avinash: Yeah.

Joe: But--

Avinash: For sure.

Joe: It's a nice place to visit now.

Avinash: Yeah.

Joe: The part that cracks me up-up when people come to, uh, Miami is like, it's one thing when people from Miami go somewhere else, like, oh, this is like a little off for whatever reason. But when people come here now, I feel like they're just like, damn this is what freedom looks like.

Avinash: Yeah.

Joe: Right. And like, they're talking about everything from, you know, pandemic-related stuff to the economy, to the, just the way that the local government feels to be encouraging local business, like all this stuff. And it makes you actually thankful, like grateful. Like, you know, most people didn't **[00:38:00]** move here with their eyes wide open. Like that's why they were moving. But once you get here and you get into it and you're like, oh, okay. Like this is where I want to be.

Avinash: Totally. I-I feel like in-in Miami, there's not really rules. They're like guidelines.

[laughter]

Joe: Yeah.

Participant: You know- you know, you can follow them.

Avinash: The Mayor's like, shit.

[laughter]

Participant: You like, follow them or-or-or not. But like, I feel like most people, you know, if you treat them like adults, they'll behave like adults.

Joe: Yeah-yeah-yeah.

Participant: You know, like, and-and that's, there's like this general mutual respect. So yeah, I think that's been really referring.

Joe: I completely agree with that. Before we let you go, where can **[00:38:30]** people go? Like what-what would be helpful to FTX or like, how do you guys wanna help people that are watching this?

Avinash: Thanks for that. I-I-I would say, you know, follow us on Twitter, on Instagram, ftx.us if you wanna open an account. If you're in Miami, you know, come to our event, which we'll-we'll be announcing for the Miami Grand Prix. I think we'll be announcing next week. But, you know, excited to, and opening that up to-to anyone and everyone.

Joe: Somebody suggested also you should do FTX barf bags on the- on the airplanes. I don't know if that's good or bad. **[00:39:00]** It's probably cheap relative impressions.

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[laughter]

[crosstalk]

Avinash: I don't think I've ever thrown up on a plane. Like, yeah. I don't think those **[unintelligible 00:39:10]** that much.

Joe: Uh, to-to be honest, actually, uh, now that I'm thinking about it is, I bet you no one's ever done an advertising deal inside of the plane but like, you're just sitting there staring.

Avinash: Right. Right.

Participant: Well, you can do the airbag comes down and you're like, "Oh, let me check out the **[unintelligible 00:39:24]** first. Well, if I go sell or did say Bitcoin was oxygen, so like--

Avinash: Y-you know what, I always see the Marriott Bonvoy **[00:39:30]** commercial play before, like every movie that I try and watch [crosstalk] and credit card ads. I mean, they literally go down the aisle trying to sell you--

[laughter]

[crosstalk]

And it's only rewards they talking about. It's not like what the APR or any of that stuff.

Participant: We've been 27% APR but don't listen to that. You get 500 airline points.

Joe: You can go to **[unintelligible 00:39:50]** for one night.

[laughter]

Avinash: Yeah. That's crazy.

Joe: Thank you so much for coming on.

Avinash: Hey, thank you guys so much for having me. This is- this is fun. This is really fun.

Joe: We're gonna bring back after you guys do something **[00:40:00]** else crazy.

Avinash: Sure when we open that bar, like let's-let's, uh, what we could do is **[unintelligible 00:40:03]**

Joe: We're gonna message you afterwards. [crosstalk] John is gonna find the GM and we'll mean business.

Avinash: Sounds great, guys. Thank you. Thanks so much.

File name: 40 The Crypto Company Spending 500 Million On Sports Partnerships With Avinash Dabir.mp3

Joe: Alright. Thank you, buddy. All right, everyone. That's it for today. I hope you enjoyed this episode. And as always, I appreciate you listening to the Joe Pomp Show. Make sure you subscribe to the podcast on Apple or Spotify so that you don't miss any episodes going forward. And if you are looking for additional content, check out my daily newsletter at readhuddleup.com **[00:40:30]** or follow me on Twitter @JoePompliano. I hope you have a great day and I'll see you next time.

[00:40:38] [END OF AUDIO]

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Exhibit D

Exhibit A

FIRST INTERIM REPORT OF JOHN J. RAY III TO THE INDEPENDENT DIRECTORS ON CONTROL FAILURES AT THE FTX EXCHANGES

April 9, 2023

TABLE OF CONTENTS

I. Introduction

FTX Trading Ltd. ("FTX.com" and, together with its U.S. counterpart, FTX.US, the "FTX exchanges") was among the world's largest cryptocurrency exchanges, where millions of customers bought, sold and traded crypto assets. The FTX exchanges gained international prominence for their popularity among users, their high-profile acquisitions and celebrity endorsements, and the public image of Sam Bankman-Fried, their co-founder and CEO, as a philanthropist who worked to enhance standards, disclosure, oversight, and customer protection in the crypto industry.[1] On November 11, 2022, however, capping a stunning collapse that began just nine days earlier with the revelation of financial weakness at their affiliated trading firm, Alameda Research LLC ("Alameda"), the FTX exchanges and certain entities under common ownership (the "FTX Group")[2] filed for bankruptcy (the "Chapter 11 Cases"). Within weeks, Bankman-Fried was charged with perpetrating a multibillion-dollar fraud through the FTX Group with at least three senior insiders, who have pleaded guilty in connection with the scheme.

When the Chapter 11 Cases were first filed, the Debtors[3] identified five core objectives: (1) implementation of controls, (2) asset protection and recovery, (3) transparency and investigation, (4) efficiency and coordination with any non-U.S. proceedings and

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[1] *See* David Yaffe-Bellany, *A Crypto Emperor's Vision: No Pants, His Rules*, N.Y. TIMES, May 14, 2022, https://www.nytimes.com/2022/05/14/business/sam-bankman-fried-ftx-crypto.html?.

[2] The "FTX Group" refers to FTX Trading Ltd., West Realm Shires Services Inc., d/b/a FTX.US, Alameda Research LLC, and their directly and indirectly owned subsidiaries.

[3] The Debtors comprise the approximately one hundred entities associated with the FTX Group listed at https://restructuring.ra.kroll.com/FTX.

(5) maximization of value.[4] It is in furtherance of these core objectives, particularly transparency, that this first interim report is issued. The Debtors plan to issue supplemental reports which describe the cause and effect of the pre-petition events which lead up to the Chapter 11 Cases.

In working to achieve their objectives, the Debtors have had to overcome unusual obstacles due to the FTX Group's lack of appropriate record keeping and controls in critical areas, including, among others, management and governance, finance and accounting, as well as digital asset management, information security and cybersecurity. Normally, in a bankruptcy involving a business of the size and complexity of the FTX Group, particularly a business that handles customer and investor funds, there are readily identifiable records, data sources, and processes that can be used to identify and safeguard assets of the estate. Not so with the FTX Group.

Upon assuming control, the Debtors found a pervasive lack of records and other evidence at the FTX Group of where or how fiat currency and digital assets could be found or accessed, and extensive commingling of assets. This required the Debtors to start from scratch, in many cases, simply to identify the assets and liabilities of the estate, much less to protect and recover the assets to maximize the estate's value. This challenge was magnified by the fact that the Debtors took over amidst a massive cyberattack, itself a product of the FTX Group's lack of controls, that drained approximately $432 million worth of assets on the date of the bankruptcy

[4] First Day Declaration of John Ray III, Dkt 24 ("First Day Declaration") ¶ 6. *See also* Presentation to the Official Committee of Unsecured Creditors, Dkt 507 at 7; Presentation to the Official Committee of Unsecured Creditors, Dkt 792 (describing efforts to assess exchange shortfalls); Presentation to the Official Committee of Unsecured Creditors, Dkt 1101 (describing statement of financial affairs).

petition (the "November 2022 Breach"),[5] and threatened far larger losses absent measures the Debtors immediately implemented to secure the computing environment.

Despite the public image it sought to create of a responsible business, the FTX Group was tightly controlled by a small group of individuals who showed little interest in instituting an appropriate oversight or control framework. These individuals stifled dissent, commingled and misused corporate and customer funds, lied to third parties about their business, joked internally about their tendency to lose track of millions of dollars in assets, and thereby caused the FTX Group to collapse as swiftly as it had grown. In this regard, while the FTX Group's failure is novel in the unprecedented scale of harm it caused in a nascent industry, many of its root causes are familiar: hubris, incompetence, and greed.

This first interim report provides a high-level overview of certain of the FTX Group's control failures in the areas of (i) management and governance, (ii) finance and accounting, and (iii) digital asset management, information security and cybersecurity. The report does not address all control failures in these or other areas. The Debtors continue to learn new information daily as their work progresses and expect to report additional findings in due course.

II. Background

The following is a brief description of the FTX Group entities most relevant to this interim report.

A. Alameda

Founded in 2017 by Bankman-Fried and Gary Wang, Alameda operated as a "crypto hedge fund" that traded and speculated in crypto assets and related loans and securities

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5 All crypto asset values set forth in this report are as of the petition date, November 11, 2022.

for the account of its owners, Bankman-Fried (90%) and Wang (10%).[6] Alameda also offered over-the-counter trading services and made and managed other debt and equity investments. Beginning in October 2021, Caroline Ellison acted variously as CEO and co-CEO of Alameda, which was organized in the State of Delaware.

B. FTX.com

Founded in 2019 by Bankman-Fried and Wang, FTX.com was a digital asset trading platform and exchange that was organized in Antigua and represented as being off-limits to U.S. users.[7] FTX.com was operated, at the most senior level, by Bankman-Fried, Wang, and Nishad Singh, who had worked at Alameda and joined FTX.com soon after it was launched. By November 2022, FTX.com had more than seven million registered users around the world.

C. FTX.US

Founded in January 2020 by Bankman-Fried, Wang, and Singh, FTX.US was an exchange for spot trading in digital assets and tokens in the United States. The FTX.US platform was organized in the State of Delaware. By November 2022, FTX.US had over one million U.S. users.[8]

III. Scope of Review

A. Retention of Advisers

In connection with the Chapter 11 Cases and related matters, the Debtors have retained a number of advisers, including:[9]

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6 First Day Declaration ¶ 22.

7 *See id.* ¶ 33.

8 *Id.* ¶ 21.

9 This summary is limited to the advisers, and the work these advisers are performing, on the control failures that are relevant to this interim report. As noted in the Debtors' Chapter 11 filings, some of these advisers have additional responsibilities, and the Debtors have retained additional advisers beyond those listed here to assist with other important matters of the estate.

- **Legal:** The Debtors retained Sullivan & Cromwell LLP as lead counsel to assist in the filing and prosecution of the Chapter 11 Cases, investigating potential causes of action and avenues of recovery for the Debtors' estate, and responding to requests from government authorities, among other matters. The Debtors also retained Quinn Emanuel Urquhart & Sullivan LLP as Special Counsel to assist the Debtors and the Board in litigating bankruptcy-related matters against third parties, and investigating and prosecuting certain claims, including asset recovery actions.

- **Restructuring, asset identification and forensic accounting:** The Debtors retained Alvarez & Marsal North America, LLC ("A&M") as their restructuring adviser to assist in identifying, quantifying, and securing liquid and crypto assets, investments, and other property of the Debtors' estate, as well as development of ongoing business plans and supporting the overall restructuring process. The Debtors also retained AlixPartners LLP ("AlixPartners") to assist in tracing and analyzing financial and accounting data, including trading activity and FTX Group internal transfers, and re-constructing historical financial statements for each Debtor entity.

- **Cybersecurity, computer engineering, and cryptography:** The Debtors retained Sygnia, Inc. ("Sygnia") to secure their computing environment following the November 2022 Breach; to identify and secure the Debtors' remaining digital assets; to investigate the November 2022 Breach; and to perform technical and forensic analysis in support of the Debtors' other ongoing work to recover assets.

- **Blockchain analytics:** The Debtors retained TRM Labs, Inc. ("TRM") and Chainalysis Inc. ("Chainalysis") to engage in blockchain analysis to assist A&M and Sygnia in identifying crypto assets of the Debtors, and to monitor crypto assets stolen in the November 2022 Breach, including in order to work with law enforcement and other third parties to attempt to freeze and recover the stolen assets.

Identifying and recovering assets of the Debtors' estate, and identifying potential claims of the estate, requires extensive coordination among these advisers, particularly given the FTX Group's lack of adequate record keeping and extensive commingling of assets.

B. Data Collection

To date, the Debtors have reviewed over one million documents collected from Debtor entities around the world, including communications (*e.g.*, Slack, Signal, email) and other documents (*e.g.*, Excel spreadsheets, Google Drive documents). The Debtors have also been engaged in substantial analysis of FTX Group customer transaction data, which is housed in databases that are over one petabyte (*i.e.*, 1000 terabytes) in size. The Debtors' review of relevant documents and customer transaction data remains ongoing.

The Debtors have also reviewed and analyzed the FTX Group's available financial records. These include QuickBooks, which certain entities in the FTX Group used as their general ledgers; certain bank statements; financial statements; tax returns; promissory notes evidencing intercompany loans; spreadsheets recording real estate transactions, political and charitable contributions, and venture investments; and Slack channels devoted to expense reimbursements and related matters.

Finally, the Debtors have analyzed a small set of laptops and other electronic devices of certain employees of the FTX Group, and continue to collect such devices. The set of electronic devices in the Debtors' possession does not include those known to have belonged to Bankman-Fried and other key insiders that are currently in the possession of the Bahamian Joint Provisional Liquidators ("JPLs") and are the subject of ongoing discussion between the Debtors and the JPLs.

C. Witnesses

To date, the Debtors have conducted interviews of 19 employees of the FTX Group, and received substantial information through counsel for five others. These include interviews of employees who worked in Policy and Regulatory Strategy, Information Technology, Controllers, Administration, Legal, Compliance, and Data Science and Engineering, among others. The Debtors continue to identify, interview, and collect information from potentially relevant witnesses.

While Singh, Wang, and Ellison have pleaded guilty pursuant to cooperation agreements with the Justice Department, it is generally not feasible for the Debtors to interview them on key subjects until after the ongoing criminal prosecution of Bankman-Fried has concluded. Wang has provided discrete assistance to the Debtors' financial and technical advisors.

IV. Review of Control Failures

The FTX Group's control failures created an environment in which a handful of employees had, among them, virtually limitless power to direct transfers of fiat currency and crypto assets and to hire and fire employees, with no effective oversight or controls to act as checks on how they exercised those powers. These employees, particularly Bankman-Fried, deprioritized or rejected advice to improve the FTX Group's control framework, exposing the exchanges to grave harm from both external bad actors and their own misconduct.

A. Lack of Management and Governance Controls

The FTX Group lacked appropriate management, governance, and organizational structure. As a result, a primary objective of the Debtors has been to institute an appropriate governance framework from the outset of the bankruptcy.

1. FTX Group Management and Governance

The management and governance of the FTX Group was largely limited to Bankman-Fried, Singh, and Wang. Among them, Bankman-Fried was viewed as having the final voice in all significant decisions, and Singh and Wang largely deferred to him.[10] These three individuals, not long out of college and with no experience in risk management or running a business, controlled nearly every significant aspect of the FTX Group. With isolated exceptions, including for FTX.US Derivatives ("LedgerX"), a non-Debtor entity it acquired in late 2021, FTX Japan, a Debtor acquired in 2022, and Embed Clearing LLC, a non-Debtor acquired in 2022, the FTX Group lacked independent or experienced finance, accounting, human resources, information security, or cybersecurity personnel or leadership, and lacked any internal audit function whatsoever. Board oversight, moreover, was also effectively non-existent.

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10 *See, e.g.*, *SEC* v. *Caroline Ellison et al.*, 22-cv-10794 (S.D.N.Y. Dec. 21, 2022), Compl. ¶¶ 21, 25, 45(b), 45(c), 46, 67, 96, Dkt 1; *SEC* v. *Nishad Singh*, 23-cv-01691 (S.D.N.Y. Feb. 28, 2023), Compl. ¶¶ 8, 9, 32, 34, 40, 50-51, 67, 90, 100, Dkt 1.

Most major decision-making and authority sat with Bankman-Fried, Singh, and Wang, and numerous significant responsibilities were not delegated to other executives or managers even where such individuals had been hired. Commenting on Wang's and Singh's control over the FTX Group's technology development and architecture, an FTX Group executive stated that "if Nishad [Singh] got hit by a bus, the whole company would be done. Same issue with Gary [Wang]."

Efforts to clarify corporate responsibilities and enhance compliance were not welcome and resulted in backlash. For example, the President of FTX.US resigned following a protracted disagreement with Bankman-Fried and Singh over the lack of appropriate delegation of authority, formal management structure, and key hires at FTX.US; after raising these issues directly with them, his bonus was drastically reduced and senior internal counsel instructed him to apologize to Bankman-Fried for raising the concerns, which he refused to do. Similarly, less than three months after being hired, and shortly after learning about Alameda's use of a North Dimension bank account to send money to customers of the FTX exchanges, a lawyer within the FTX Group was summarily terminated after expressing concerns about Alameda's lack of corporate controls, capable leadership, and risk management.

Echoing its lack of appropriate management and governance structure, the FTX Group lacked an appropriate organizational structure. Rather than having an ultimate parent company able to serve as a central point for decision-making that could also direct and control its subsidiaries, the FTX Group was organized as a web of parallel corporate chains with various owners and interests, all under the ultimate control of Bankman-Fried.

The FTX Group's lack of management and governance controls also manifested in the absence of any comprehensive organizational chart of the FTX Group entities prior to the end of 2021, and the lack of any tracking of intercompany relationships and ownership of

particular entities. At the time of the bankruptcy filing, the FTX Group did not even have current and complete lists of who its employees were.

2. Debtors' Management and Governance

A primary objective of the Debtors was to institute an appropriate management, governance, and structural framework at the outset of the bankruptcy. To do so, the Debtors arranged the conduct of the Chapter 11 Cases into four groups of businesses, or "Silos," for organizational purposes: (a) Debtor West Realm Shires Inc. and its Debtor and non-Debtor subsidiaries (the "WRS Silo"), which includes the businesses known as FTX.US, LedgerX, FTX.US Derivatives, FTX.US Capital Markets, and Embed Clearing, among other businesses; (b) Debtor Alameda Research LLC and its Debtor subsidiaries (the "Alameda Silo"); (c) Debtor Clifton Bay Investments LLC, Debtor Clifton Bay Investments Ltd., Debtor Island Bay Ventures Inc. and Debtor FTX Ventures Ltd. (the "Ventures Silo"); and (d) Debtor FTX Trading Ltd. and its Debtor and non-Debtor subsidiaries (the "Dotcom Silo"), including the exchanges doing business as "FTX.com" and similar exchanges in non-U.S. jurisdictions. The Debtors then moved expeditiously to build a Board of Directors that, for the first time, would provide independent oversight of the disparate corporate chains that constituted the FTX Group.

As previously set forth in filings in the Chapter 11 Cases, the Debtors appointed a board of directors (the "Board") consisting of five directors with respective silo responsibilities.[11] These directors were wholly independent from the FTX Group, and have a wealth of experience in complicated restructuring matters well suited to the Debtors' present

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[11] First Day Declaration ¶¶ 46-47.

circumstances.[12] The Board meets effectively on a weekly or more frequent basis on matters of common interest of the Silo directors, including the objectives set forth above.[13]

The Debtors appointed John J. Ray III as their Chief Executive Officer, Mary Cilia as their Chief Financial Officer, Kathryn Schultea as their Chief Administrative Officer, and Raj Perubhatla as their Chief Information Officer. These officers each have extensive experience in providing crisis management services, including work relating to complex financial and operational restructurings, to distressed and under-performing companies. Collectively, these executives have over 125 years of experience, including at senior management levels of public companies.

B. Lack of Financial and Accounting Controls

At its peak, the FTX Group operated in 250 jurisdictions, controlled tens of billions of dollars of assets across its various companies, engaged in as many as 26 million transactions per day, and had millions of users. Despite these asset levels and transaction volumes, the FTX Group lacked fundamental financial and accounting controls. Reconstruction of the Debtors' balance sheets is an ongoing, bottom-up exercise that continues to require significant effort by professionals.

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[12] *Id.* The Director of the WRS Silo is Mitchell I. Sonkin, a Senior Advisor to MBIA Insurance Corporation. The Director of the Alameda Silo is Matthew R. Rosenberg, a Partner at Lincoln Park Advisors. The Director of the Ventures Silo is Rishi Jain, a Managing Director and Co-Head of the Western Region of Accordion. The Director of the Dotcom Silo, and the Lead Independent Director, is the Honorable Joseph J. Farnan, who served for almost three decades as a United States District Judge for the District of Delaware.

[13] At this phase in the Chapter 11 Cases, the Debtors are focused on asset recovery and maximization of value for all stakeholders through the eventual reorganization or sale of the Debtors' complex array of businesses, investments and property around the world. The Debtors believe that all Silos benefit from this central administration process and full visibility of the assets being obtained, and the various sales processes being run, with all Silo Directors participating in the relevant decision-making processes in order to flag any inter-Silo issues early. At a later stage in the Chapter 11 Cases, when the Debtors' assets have been appropriately marshaled and secured, the Board and Debtors will turn their focus to distributional matters. The Board has also implemented appropriate procedures for the resolution of any conflicts of interest among the Silos and if necessary as the case progresses, any Silo may engage independent counsel in connection with the resolution of intercompany claims which, as the Debtors have previously noted, are likely to be complex but are still in the process of being assessed.

1. Lack of Key Personnel, Departments and Policies

The FTX Group did not have personnel who were experienced and knowledgeable enough to account accurately for assets and liabilities, understand and hedge against risk, or compile and validate financial reports. Key executive functions, including those of Chief Financial Officer, Chief Risk Officer, Global Controller and Chief Internal Auditor, were missing at some or all critical entities. Nor did the FTX Group have any dedicated financial risk, audit, or treasury departments. Although certain of the FTX Group entities nominally employed individuals responsible for accounting at those entities, in many instances, those individuals lacked the requisite expertise and had little or no internal staff. As a general matter, policies and procedures relating to accounting, financial reporting, treasury management, and risk management did not exist, were incomplete, or were highly generic and not appropriate for a firm handling substantial financial assets.

Indeed, in late December 2020, when the FTX Group learned, in connection with exploring a potential direct listing on NASDAQ, that FTX.US would have to be audited, and that this audit would include a review of policies and procedures, senior FTX Group personnel scrambled to cobble together purported policies that could be shown to auditors. In requesting the assistance of certain employees in quickly writing policies, FTX Group management informed them that because the "auditors [would] spend time in understanding and reviewing [FTX] internal processes," internal controls would have to be documented. FTX Group management asked employees "well-versed with" "parts of the [work]flow" to provide first drafts of policies and procedures in a mere 24 hours. It is unclear to what extent the resulting policies—which were prepared by editing off-the-shelf precedents provided by the FTX Group's outside accountants—reflected the reality of the FTX Group's business, but they were never formally promulgated, and no employees were ever trained on them.

The FTX Group principally relied on a small outside accounting firm to perform almost all of its basic accounting functions. Although the outside accountants' public profile is limited, it appears to have a small number of employees and no specialized knowledge relating to cryptocurrencies or international financial markets. There is no evidence that the FTX Group ever performed an evaluation of whether its outside accountants were appropriate for their role given the scale and complexity of the FTX Group's business, or whether they possessed sufficient expertise to account for the wide array of products in which the FTX Group transacted.

2. Lack of Appropriate Accounting Systems

Companies with operations as large and complex as those of the FTX Group normally employ either an advanced off-the-shelf Enterprise Resource Planning ("ERP")[14] system (*e.g.*, Oracle Fusion Cloud ERP, SAP S/4HANA Cloud) or a sophisticated proprietary system tailored to the accounting needs of the business such as, for a crypto exchange or trading business, a system tailored to the crypto assets in which the business transacted. Any appropriate accounting system should be capable of handling large volumes of data to accurately record, process, and report financial statement information (balance sheet/income statement) as well as operational information (actual versus budgeted spending), and to store key supporting materials. To minimize the risk of data integrity errors and the need for manual processing of transactions, data should flow automatically into the accounting system from core systems of the business, with transactions recorded based on appropriate accounting criteria and logic. None of the FTX Group companies employed such an accounting system.

Fifty-six entities within the FTX Group did not produce financial statements of any kind. Thirty-five FTX Group entities used QuickBooks as their accounting system and

[14] An ERP system is a type of software system that helps an organization automate and manage core business processes for optimal performance. ERP software coordinates the flow of data among a company's business processes, streamlining operations across the enterprise.

relied on a hodgepodge of Google documents, Slack communications, shared drives, and Excel spreadsheets and other non-enterprise solutions to manage their assets and liabilities. QuickBooks is an accounting software package designed for small and mid-sized businesses, new businesses, and freelancers.[15] QuickBooks was not designed to address the needs of a large and complex business like that of the FTX Group, which handled billions of dollars of securities, fiat currency, and cryptocurrency transactions across multiple continents and platforms.

As a result of the FTX Group's poor controls, and the inherent limitations of QuickBooks software for use in a large and complex business, the FTX Group did not employ QuickBooks in a manner that would allow it to maintain accurate financial records. For example, QuickBooks did not interface directly with the FTX Group's core systems. Data had to be transported from the FTX Group systems into QuickBooks manually, generally by outside accountants who did not have access to the source data to validate that they had completely and accurately transferred the data into QuickBooks. Furthermore, because they processed large volumes of data only manually, a great deal of transaction detail (*e.g.*, the purpose of a transaction) was either populated *en masse*, or omitted entirely. Substantial accounts and positions went untracked in QuickBooks. Digital asset transactions were tracked in QuickBooks using the generic entry "investments in cryptocurrency," but detailed recordkeeping reflecting what those cryptocurrency investments actually consisted of did not exist in QuickBooks, making reconciliation with other data sources extremely challenging or impossible. Approximately 80,000 transactions were simply left as unprocessed accounting entries in catch-all QuickBooks accounts titled "Ask My Accountant." Further complicating matters,

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15 *See* INTUIT QUICKBOOKS, https://quickbooks.intuit.com/ (last visited Apr. 4, 2023).

QuickBooks entries were often made months after transactions occurred, rendering impossible real-time financial reporting and risk management.

Alameda often had difficulty understanding what its positions were, let alone hedging or accounting for them. For the vast majority of assets, Alameda's recordkeeping was so poor that it is difficult to determine how positions were marked. A June 2022 "Portfolio summary" purporting to model cryptocurrency positions held by Alameda stated, with respect to valuation inputs for certain tokens, that Alameda personnel should "come up with some numbers? idk." In an internal communication, Bankman-Fried described Alameda as "hilariously beyond any threshold of any auditor being able to even get partially through an audit," adding:

> Alameda is unauditable. I don't mean this in the sense of "a major accounting firm will have reservations about auditing it"; I mean this in the sense of "*we* are only able to ballpark what its balances are, let alone something like a comprehensive transaction history." We sometimes find $50m of assets lying around that we lost track of; such is life.

Bankman-Fried's statements evidence the challenges a competent audit firm would have had to overcome to audit Alameda's business.

3. Inadequate Reporting and Documentation

A large number of FTX Group entities did not close financial reporting periods on a timely basis, and back-end checks to identify and correct material errors (*e.g.*, secondary review of transactions over a certain size, reconciliations of bank accounts, cryptocurrency wallets transactions, and other off-exchange positions) did not occur. These and other deficiencies resulted in numerous, often substantial, positions either not being recorded or being recorded in vague or inaccurate ways.

Key accounting reports necessary to understand the FTX Group's assets and liabilities, such as statements of cash flows, statements of equity, intercompany and related party

transaction matrices, and schedules of customer entitlements, did not exist or were not prepared regularly. Important treasury reports, such as reports on daily liquidity, daily settlement, funding mismatches, concentration risk, and liability profiles, did not exist or were not prepared regularly. Copies of key documentation—including executed loan agreements, intercompany agreements, acquisition and investment documents, bank and brokerage account statements, and contract and account information of all types—were incomplete, inaccurate, contradictory, or missing entirely. Thousands of deposit checks were collected from the FTX Group's offices, some stale-dated for months, due to the failure of personnel to deposit checks in the ordinary course; instead, deposit checks collected like junk mail. As discussed in greater detail below, the FTX Group did not maintain reliable lists of bank or trading accounts, cryptocurrency wallets, or authorized signatories. The Debtors have had to construct this historical data from scratch and make sense of the numerous resulting discrepancies, anomalies, and undocumented positions.

Although the FTX Group consisted of many, separate entities, transfers of funds among those entities were not properly documented, rendering tracing of funds extremely challenging. To make matters worse, Slack, Signal, and other informal methods of communication were frequently used to document approvals. Signal and Telegram were at times utilized in communications with both internal and external parties with "disappearing messages" enabled, rendering any historical review impossible. Expenses and invoices of the FTX Group were submitted on Slack and were approved by "emoji." These informal, ephemeral messaging systems were used to procure approvals for transfers in the tens of millions of dollars, leaving only informal records of such transfers, or no records at all.

Numerous loans were executed between former insiders and Alameda without contemporaneous documentation, and funds were disbursed pursuant to those purported loans with no clear record of their purpose. In one instance, an insider entered into an agreement to

purchase a piece of real estate. The funds used to purchase that property, however, were wired directly from Alameda and FTX Digital Markets Ltd. ("FTX DM"), a Bahamas-based entity which was owned by, and had obtained the funds from, FTX Trading Ltd. Only four months after the real estate purchase had closed did the employee enter into a promissory note with Alameda in which he undertook to repay the funds used to purchase the property. Other insiders received purported loans from Alameda for which no promissory notes exist.

4. Trading Records from Other Exchanges

While the FTX Group maintained over a thousand accounts on external digital asset trading platforms in jurisdictions around the world, many of which held significant assets at various points in time, it had no comprehensive, centralized source of information reflecting the purpose of these accounts, or the credentials to access them. Many of these accounts were opened using names and email addresses that were not obviously linked to any of the FTX Group entities. Other accounts were opened using pseudonymous email addresses, in the names of shell companies created for these purposes, or in the names of individuals (including individuals with no direct connection to the FTX Group).

The Debtors have been working to identify and access these external accounts in order to secure the Debtors' assets and extract historical trading data. Obtaining such access has required significant document review, interviews with current and former employees, and engagement with the external platforms. In many instances, accounts belonging to the Debtors have been seized, locked, or frozen, requiring further coordination with the platforms and foreign government agencies to provide adequate proof of ownership and authorization to access the accounts.

5. Intercompany Transactions

The FTX Group did not observe any discernable corporate formalities when it came to intercompany transactions. Assets and liabilities were routinely shuffled among the FTX Group entities and insiders without proper process or documentation. Alameda routinely provided funding for corporate expenditures (*e.g.*, paying salaries and other business expenses) whether for Alameda, for various other Debtors, or for FTX DM, and for venture investments or acquisitions whether for Alameda or for various other Debtors. Alameda also transferred funds to insiders to fund personal investments, political contributions, and other expenditures—some of which were nominally "papered" as personal loans with below-market interest rates and a balloon payment due years in the future.

Intercompany and insider transfers were often recorded on the QuickBooks general ledgers in a manner that was inconsistent with the apparent purpose of the transfers. For example, an Alameda bank account transferred tens of millions of dollars to a personal bank account of Bankman-Fried in 2021 and 2022. Although the transfers were documented in promissory notes as loans from Alameda to Bankman-Fried, they were recorded on the general ledger as "Investment in Subsidiaries: Investments-Cryptocurrency." The Debtors have identified examples of intercompany transactions that do not balance to each other (*i.e.*, where the amounts "due to" and "due from" do not balance across the relevant entities). North Dimension, a shell company owned by Alameda, frequently recorded cash transfers to Alameda accounts in the general ledger with the description "interco transfer reflecting bank wire," without otherwise stating the purpose or substance of the transaction.

In addition to these inconsistencies, many intercompany transactions recorded in the QuickBooks general ledgers involved digital assets, but critical records regarding which digital assets were transferred, and at what values they were transferred, were not maintained in

QuickBooks. Multiple intercompany transactions were recorded in QuickBooks by grouping many transactions together in summary batch entries without sufficient information to identify or properly account for the underlying transactions. Compounding the issue, these batch entries were then recorded under generalized account names in QuickBooks such as "investments in cryptocurrency," as described above. The cumulative impact is that these intercompany transactions as recorded in QuickBooks are difficult to reconcile with underlying documentation, and have required substantial additional investigation to understand and properly account for.

6. Extraordinary Privileges Granted to Alameda

Alameda was a customer of FTX.com, trading for its own account as well as engaging in market-making activities, and, in that capacity, it was granted extraordinary privileges by the FTX Group.[16] As detailed below, the FTX Group configured the codebase of FTX.com and associated customer databases to grant Alameda an effectively limitless ability to trade and withdraw assets from the exchange regardless of the size of Alameda's account balance, and to exempt Alameda from the auto-liquidation process that applied to other customers. Any number of different controls routinely implemented by financial institutions and exchanges in established financial markets would be expected to have prevented, detected, and escalated these secret privileges to personnel in control functions with sufficient independence and authority to address the issue.[17]

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16 FTX Group granted the same privileges to Alameda on FTX.US. Because the Debtors' investigation is ongoing as to whether or to what extent Alameda made use of these privileges on FTX.US, this discussion focuses on FTX.com.

17 For instance, at a financial institution, these privileges would be expected to be identified by the finance department, as part of balance activity reports and margin balance monitoring; the market risk department, via VAR calculations and funding risk metrics; and the accounting department, through reconciliations of account-level balances against independently calculated aggregate exchange balances; and by having compliance, information technology, risk management, and finance departments that are segregated and independent from traders and other front-line business personnel.

The FTX Group not only failed to disclose these privileges to its customers or the public, but affirmatively misrepresented Alameda's privileged status relative to that of other customers. On July 31, 2019—the same day Singh altered the codebase to allow Alameda to withdraw apparently unlimited amounts of crypto assets from FTX.com, and a week after he altered it to effectively exempt Alameda from auto-liquidation—Bankman-Fried claimed on Twitter that Alameda's account was "just like everyone else's and "Alameda's incentive is just for FTX to do as well as possible."[18] As recently as September 2022, in interviews with reporters, Bankman-Fried claimed that Alameda was a "wholly separate entity" and Ellison claimed that Alameda was "arm's-length and [did not] get any different treatment from other market makers."[19]

a. FTX customers and auto-liquidation processes

In general, there were two types of customers on FTX.com: retail customers and market makers (*i.e.*, liquidity providers that stand ready to buy or sell to satisfy market demand). As to both types of customers, the exchange implemented automatic liquidation processes such that if the customer's account balance fell below a certain threshold, then the customer's existing positions on the exchange would be liquidated (*i.e*., sold off) until the account balance became net-positive again.

For retail customers, the auto-liquidation process was triggered if the customer's account balance approached zero. Market-makers and certain other preferred customers were

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[18] Sam Bankman-Fried, Twitter (July 31, 2019), *at* https://twitter.com/bitshine_/status/1156665108174651392?ref_src=twsrc%5Etfw%7Ctwcamp%5Etweetembed%7Ctwterm%5E1156696100729806849%7Ctwgr%5E4bccfdc775938ec4496be7f2a64f95301cbc3e7b%7Ctwcon%5Es2_&ref_url=https%3A%2F%2Fwww.forbes.com%2Fadvisor%2Finvesting%2Fcryptocurrency%2Fwhat-happened-to-ftx%2F (responding to a Twitter user's question about how Bankman-Fried would "resolve the conflict of interest of running [his] own derivative exchange, AND actively trading against the market at the same time").

[19] Annie Massa, Anna Irrera, and Hannah Miller, *Quant Shop with Ties to FTX Powers Bankman-Fried's Crypto Empire*, BLOOMBERG NEWS (Sept. 14, 2022).

provided lines of credit in amounts that varied by customer up to a maximum of $150 million; for those customers, the auto-liquidation process would be triggered if the account became negative and approached the pre-set borrowing limit.

Apart from auto-liquidation processes that prevented customers from trading on the exchange if their balance went below a given threshold, through the operation of its code, FTX.com did not allow customers—except, as set forth below, Alameda—to withdraw assets from the exchange in excess of the amount of their net-positive account balance.

b. Alameda's privileges

Contrary to the public claims of FTX Group management, the FTX Group exempted Alameda from the automatic processes set forth above in multiple ways. Specifically, one of the privileges secretly granted to Alameda, executed through a setting known as "*borrow*," permitted Alameda alone to trade on FTX.com effectively without regard to the size of its overall negative position. *Borrow* was a field in the customer account settings within the FTX.com exchange's customer databases that contained a value for each customer representing how much the customer could "borrow"—*i.e.*, whether and to what extent the customer's account balance could become net-negative without triggering trade restrictions or the FTX.com exchange's auto-liquidation processes. As of the petition date, on FTX.com:

- Most retail customers had a *borrow* value of zero;
- Certain preferred customers and market makers had a *borrow* value greater than zero and in amounts up to $150 million;

- Alameda alone had a *borrow* value set to $65 billion.[20]

The second and third privileges secretly granted to Alameda, known as "*can_withdraw_below_borrow*," and "*allow_negative*," provided Alameda the unique ability to withdraw an unlimited amount of crypto assets from FTX.com even when its account balance was net-negative. Singh added these features to the codebase of the FTX.com exchange on July 23, 2019 and July 31, 2019, respectively. It appears that Alameda's *can_withdraw_below_borrow* privilege was quickly supplanted by the addition to the codebase of *allow_negative*, which operated in essentially the same manner and controlled in the event of conflict with the settings for *can_withdraw_below_borrow*.[21]

Allow_negative referred to a field in the FTX.com exchange's customer databases that, if set to "true" for a particular customer, (i) allowed the customer to *withdraw* an unlimited amount of crypto assets from the FTX.com exchange while having a net-negative account balance (as opposed to merely "borrow") and (ii) exempted the customer from the FTX.com exchange's automatic liquidation processes. As of the petition date, Alameda was the only customer on FTX.com for which *allow_negative* was set to "true." When taken together, Alameda's $65 billion *borrow* and *allow_negative* settings gave it the unique ability to trade and

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20 Due to the FTX Group's failure to maintain appropriate database logs, it is not possible to determine precisely when these particular *borrow* values for Alameda were configured, or by whom. In interviews, one FTX Group employee recalled that, in approximately the summer of 2022, he discovered a configuration that gave Alameda a line of credit in a very large amount, and raised the issue with Singh, who responded that he would reduce the amount to $1 billion (an amount that would still be approximately seven times larger than that of any customer or market maker on the exchange). Due to the lack of database logs, it is unclear what Alameda's *borrow* value was set to at the time, or to what extent Singh made any change to reduce it. Nonetheless, database records reflect that as of the petition date, Alameda's *borrow* limit was set to $65 billion.

21 While it appears that *can_withdraw_below_borrow* was thus rendered obsolete by Singh's addition of *allow_negative*, the Debtors currently understand that the *borrow* privilege granted to Alameda continued to remain relevant because Alameda would still need a net-positive account balance (after accounting for the specified *borrow* value) in order to actually trade on the exchange.

withdraw virtually unlimited assets, regardless of the size of its account balance and without risk of its positions being liquidated.

The Debtors' investigation of extraordinary privileges granted to Alameda remains ongoing.

C. Lack of Digital Asset Management, Information Security & Cybersecurity Controls

The Debtors identified extensive deficiencies in the FTX Group's controls with respect to digital asset management, information security, and cybersecurity. These deficiencies were particularly surprising given that the FTX Group's business and reputation depended on safeguarding crypto assets. As a result of these control failures, the FTX Group exposed crypto assets under its control to a grave risk of loss, misuse, and compromise, and lacked a reasonable ability to prevent, detect, respond to, or recover from a significant cybersecurity incident, including the November 2022 Breach.

1. Lack of Key Personnel, Departments, and Policies

While the FTX Group employed software developers and a single dedicated IT professional, it had no dedicated personnel in cybersecurity, a specialized discipline that generally acts as a "check" to mitigate risks posed by business pressure for technology to operate as fast and easily as possible. The FTX Group had no independent Chief Information Security Officer, no employee with appropriate training or experience tasked with fulfilling the responsibilities of such a role, and no established processes for assessing cyber risk, implementing security controls, or responding to cyber incidents in real time. Instead, its security was largely managed by Singh and Wang, neither of whom had the training or experience to handle the FTX Group's cybersecurity needs, and both of whom had responsibilities for the speed, efficiency, and continuing development of the FTX Group's technology, which are business needs that generally run counter to those of security and thus are

not appropriately managed by the same personnel. In short, as with critical controls in other areas, the FTX Group grossly deprioritized and ignored cybersecurity controls, a remarkable fact given that, in essence, the FTX Group's entire business—its assets, infrastructure, and intellectual property—consisted of computer code and technology.

2. Crypto Asset Management and Security

A critical responsibility of a crypto exchange, as with any business that holds funds provided by others, is to safeguard crypto assets from loss, misuse, misappropriation, or theft by insiders or unauthorized third parties. Crypto exchanges face unique security challenges in this regard, which only heightens their need to focus adequate time, resources, and expertise on fulfilling this core responsibility.

a. Crypto wallets and storage

Crypto assets are held in a crypto wallet, which consists of (i) a public key that serves as the asset owner's identifier on the blockchain ledger, and (ii) a private key that is required to access the user's crypto holdings, authorize transactions, and exercise ownership over a blockchain asset. A crypto wallet can either be a "cold" wallet (*i.e.*, an offline storage unit[22]) or a "hot" wallet (*i.e.*, a storage unit that is connected to the internet). Crypto assets held in hot wallets are at a higher risk of compromise because hot wallets are internet-connected, rendering their private keys vulnerable to hacking, malware, and other cybersecurity threats. Compounding the risk, blockchain transactions are generally irreversible and anonymous, making unauthorized transfers particularly challenging, if not impossible, to recover. For these reasons, it is axiomatic in the crypto industry that a private key should be kept confidential,

22 Assets maintained in cold wallets are typically kept in a physically secured location and accessed only by authorized personnel on a need-to-access basis, a method known as "cold storage."

including by being generated and stored in a secure and encrypted manner,[23] and used exclusively by the owner. Relatedly, businesses that control private keys need detailed access control policies such that the keys may only be accessed by authorized parties or systems.

The FTX Group stored the private keys to its crypto assets in its cloud computing environment, which included over one thousand servers and related system architecture, services, and databases that it leased from Amazon Web Services (the "AWS account"). AWS's cloud computing platform offers businesses a range of infrastructure-as-a-service (IaaS), platform-as-a-service (PaaS), and software-as-a-service (SaaS) capabilities, and through it, like other businesses, the FTX Group customized, configured, and controlled its own cloud environment.

b. Lack of security controls to protect crypto assets

The FTX Group failed to implement basic, widely accepted security controls to protect crypto assets. Each failure was egregious in the context of a business entrusted with customer transactions, and any one of the controls may have prevented the loss in the November 2022 Breach. Taken together, the failures were further magnified, since each control failure exacerbated the risk posed by the others.

First, the FTX Group kept virtually all crypto assets in hot wallets, which are far more susceptible to hacking, theft, misappropriation, and inadvertent loss than cold wallets because hot wallets are internet-connected. Prudently-operated crypto exchanges keep the vast majority of crypto assets in cold wallets, which are not connected to the internet, and maintain in hot wallets only the limited amount necessary for daily operation, trading, and anticipated

[23] Encryption is the process by which readable data is converted to an unreadable form to prevent unauthorized parties from viewing or using it. Plaintext, by contrast, refers to data that is unencrypted and, therefore, can be viewed or used without requiring a key or other decryption device.

customer withdrawals.[24] Relatedly, prudently-operated crypto exchanges implement strict processes and controls to minimize the security risks (for example, the risk of hacking, theft or loss) inherent in the transfer of crypto assets between hot and cold wallets.

The FTX Group undoubtedly recognized how a prudent crypto exchange should operate, because when asked by third parties to describe the extent to which it used cold storage, it lied. For example, in 2019, Bankman-Fried falsely responded to a customer question on Twitter by providing assurance that "[we use the] standard hot wallet/cold wallet setup."[25] In 2022, the FTX Group responded to questions posed by certain advisers and counterparties about its use of cold storage as follows:

> FTX uses a best practice hot wallet and cold wallet standard solution for the custody of virtual assets. The firm aims to maintain sufficient virtual assets in the hot wallet to cover two days of trading activities, which means only a small proportion of assets held are exposed to the internet, the remaining assets are stored offline in air gapped encrypted laptops, which are geographically distributed. The 2-day trading figure is continuously monitored and if the hot wallet exceeds this amount, it will overflow into the cold wallet. If the figure drops below the 2-day trading figure, the hot wallet will be topped up from the cold wallet.

These representations were false. None of FTX.com, FTX.US, or Alameda had a system in place to monitor or move to cold wallets crypto assets in excess of the amount needed to cover two days of trading activity, and they did not use offline, air-gapped, encrypted, and geographically distributed laptops to secure crypto assets.

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[24] Although there is currently no regulation in the United States that requires exchanges to use cold wallets to store customer assets, other regulatory authorities have imposed such requirements. For instance, regulation in Japan mandates that "Crypto Asset Exchange Service Providers" keep at least 95% of users' crypto assets in a device that is always disconnected from the internet. *See* Article 63-11(2) Payment Services Act in connection with Article 27(2) Cabinet Order on Crypto Asset Exchanges. Offline storage of information is also a standard security practice and control for organizations outlined in the U.S. National Institute of Standards and Technology ("NIST")'s Special Publication 800-53 under System and Communications Protection SC-28(2).

[25] Sam Bankman-Fried, (@SBF_FTX), Twitter (Aug. 16, 2019, 5:00 AM), https://twitter.com/SBF_FTX/status/1162288084634836993.

FTX Group employees openly acknowledged uncertainty about FTX Group's use of cold storage, and that regulators and users appeared to receive different information on the subject. In Slack communications in October 2022, an FTX Group employee relayed an internal communication that "it's ab[ou]t 70% cold and 30% hot," and that he had been instructed that this information was not to be shared with regulators unless it was specifically requested. Another FTX Group employee responded that if the question was being posed by "non-regulators," then "we say 10% in hot wallet, and 90% in cold wallet."

In fact, neither of these assertions about cold storage use was true. Outside of Japan, where required by regulation to use cold storage, the FTX Group made little use of cold storage. The Debtors have identified evidence that an individual associated with LedgerX, a non-Debtor entity, recommended to FTX Group management that FTX.US secure crypto assets in cold storage using a system similar to that employed by LedgerX, but no such system was put in place prior to the bankruptcy.

Second, the FTX Group failed to employ multi-signature capabilities or Multi-Party Computation ("MPC") controls (together, "multi-signature/MPC controls") that are widely used throughout the crypto industry to protect crypto assets. These controls require the cooperation of multiple individuals using unique keys or key fragments to effectuate a transaction.[26] As a result, the controls significantly reduce the risk of fraud, theft, misuse, or errors either by any single individual or in the event any single individual's key or key fragment is compromised. These controls are widely understood to be crucial for crypto exchanges to ensure that unauthorized transactions do not occur, for many reasons: exchanges are regularly

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26 "Multi-signature" refers to the requirement that two or more authorized individuals provide unique keys or credentials to perform sensitive or critical operations, such as engaging in a high-value transfer of crypto assets. MPC controls generate multiple private keys required to digitally sign transactions, thus providing multi-signature capabilities to crypto assets that do not natively support multi-signature. Because MPCs utilize cryptographic methods, multiple parties can act to effect a single transaction without revealing their private keys to each other.

targeted by hackers; exchanges custody assets provided by others, heightening the need for security; exchanges engage in a high volume of transactions, increasing the likelihood that errors will occur; and, as noted above, compounding all of these issues, crypto assets may be difficult or impossible to recover once they have been transferred.

While a single-key mechanism may not be inappropriate for wallets holding a relatively small amount of assets, such as those held by many retail customers, there is no question that a crypto exchange should employ multi-signature/MPC controls and cold storage solutions for—at a minimum—the central wallets that hold the majority of the crypto assets of the exchange. Nonetheless, neither the FTX exchanges nor Alameda utilized them to protect crypto assets. In the few instances in which the FTX Group even attempted to employ these controls, it misapplied them: for each wallet, the FTX Group stored together, in one place, all three private keys required to authorize a transfer such that any individual who had access to one had access to all the keys required to transfer the contents of the wallet, thus defeating the purpose of the controls.

Third, the FTX Group failed to manage or implement any appropriate system to attempt to manage private keys. As noted above, because crypto assets in a hot wallet may be misappropriated by anyone with access to the private key for that wallet, private keys must be maintained in a highly-secure manner. For crypto exchanges, controls to protect and manage keys are of paramount importance because customers who transfer crypto assets from their own wallets to the exchange's wallet must relinquish control over the security of their assets to the exchange. Exchanges and other crypto businesses rely on a variety of methods of secure key storage and management that are generally not difficult to implement, and they rely on detailed access control and management policies such that the keys may only be accessed by authorized

parties or systems critical to the operation of the associated wallets.[27] Businesses also regularly retain the services of third-party crypto custodians to secure their crypto assets and minimize the risk of maintaining their own private keys.

Despite the well-understood risks, private keys and seed phrases[28] used by FTX.com, FTX.US, and Alameda were stored in various locations throughout the FTX Group's computing environment in a disorganized fashion, using a variety of insecure methods and without any uniform or documented procedure. Among other examples:

- The Debtors identified private keys to over $100 million in Ethereum assets stored in plain text and without encryption on an FTX Group server.

- The Debtors identified private keys, as well as credentials to third-party exchanges, that enabled access to tens of millions of dollars in crypto assets that were stored in plain text and without encryption across multiple servers from which they could be accessed by many other servers and users in many locations.

- Single-signature-based private keys to billions of dollars in crypto assets were stored in AWS Secrets Manager (a cloud-based tool used to manage sensitive information), and/or a password vault (a tool for secure storage of passwords), neither of which is designed to meet the needs of secure-key storage; any of the many FTX Group employees who had access to AWS Secrets Manager or the password vault could access certain of the keys and unilaterally transfer the corresponding assets.[29]

- Alameda also lacked appropriate documentation as to the description or usage of private keys. For example, a key for $600 million dollars' worth of crypto assets was titled with four non-descriptive words, and stored with no information about what the key was for, or who might have relevant information about it. The Debtors identified other keys to millions of dollars in crypto assets that were simply titled "use this" or "do not use," with no further context.

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27 Examples of these methods include encryption, as well as the use of commercially available products such as hardware wallets, hardware security modules ("HSMs"), and MPC protocols. A hardware wallet stores a user's private keys in a secure hardware device that resembles a USB drive. Crypto transactions can be made by plugging the hardware wallet into a computer or other device. An HSM is a physical computing device that protects, manages, and stores secrets, such as cryptographic keys.

28 A seed phrase (also known as a recovery phrase or mnemonic seed) is a series of words generated by a crypto wallet that allows a user to recover all the crypto assets associated with that wallet.

29 In the infrequent instances in which the FTX Group stored private keys in encrypted form, it stored the decryption key in AWS Secrets Manager and not in a protected form, such as HSM. As a result, the decryption keys could easily be retrieved by an unauthorized actor, thereby dramatically reducing the value of encryption.

- Many FTX Group private keys were stored without appropriate backup procedures such that if the key was lost, the associated crypto assets would likely be permanently lost.

- Because the FTX Group lacked adequate records of private keys, there was a significant risk that crypto assets would be lost simply because no one knew how to locate or access them. As described below, through painstaking analysis by experts, the Debtors have recovered to date over a billion dollars' worth of crypto assets as to which few or no records existed.

- Because the FTX Group failed to maintain appropriate records of access to private keys, employees or others could potentially copy those keys to their own electronic devices and transfer the associated crypto assets without detection.

Fourth, the FTX Group failed to appropriately implement controls to manage "wallet nodes," which are software programs that operate on servers running the software of the blockchain network and help to implement and propagate transactions and maintain the security and integrity of the blockchain. A wallet node that holds private keys for a specific wallet is responsible for managing that wallet's assets and communicating with the blockchain network to process transactions. As a result, the security of the associated wallet's assets depends in large part on the security of the server on which the node is running.

Crypto exchanges typically use trusted wallet nodes to broadcast transactions and query the blockchain to reconcile exchange ledger data with blockchain data. The FTX exchanges and Alameda maintained servers that ran wallet nodes for blockchains, including Bitcoin, Litecoin, and Dogecoin, among others; these nodes acted as hot wallets that held hundreds of millions of dollars' worth of assets. Virtually all FTX.com Bitcoin assets, for example, were held in a single Bitcoin Core wallet node.

Despite the obvious importance of securing its wallet nodes, the FTX Group's security controls for its wallet nodes were grossly deficient. For example, the passwords for encrypting the private keys of wallet nodes were stored in plain text, committed to the code repository (where they could be viewed by many and were vulnerable to compromise), and

reused across different wallet nodes such that if one were compromised, every other node with the same password could be compromised as well. Furthermore, wallet node servers were not securely segregated from connected servers such that anyone who compromised the FTX Group's computing environment could potentially compromise its wallet nodes.

3. Identity and Access Management

The FTX Group failed to implement in an appropriate fashion even the most widely accepted controls relating to Identity and Access Management ("IAM")—often the first line of defense in preventing an unauthorized system compromise. IAM refers to the policies, technologies, and procedures used to manage digital identities and control access to computer systems. Typically, IAM controls involve user authentication, authorization, and permissions management to ensure that only authorized individuals or systems are granted access to resources, while preventing unauthorized access and enforcing security policies. In the context of a cryptocurrency exchange, IAM controls are essential for protecting the confidentiality, integrity, and availability of crypto assets.

The FTX Group's IAM controls were insufficient in at least three respects:

First, the FTX Group failed to adhere to the basic security principle of "least privilege," by which users and systems are given access to the minimum needed to perform their duties or functions and nothing more.[30] By limiting access in this way, the impact of a security breach or an unintentional action involving any particular user or system is also necessarily limited. Among notable examples of the FTX Group's failures in this respect, over a dozen people had direct or indirect access to the FTX.com and FTX.US central omnibus wallets, which

[30] The Committee on National Security Systems defines "least privilege" as "[t]he principle that a security architecture should be designed so that each entity is granted the minimum system resources and authorizations that the entity needs to perform its function." Committee on National Security Systems (CNSS) Glossary, CNSSI No. 4009-2015, (Apr. 6, 2015).

held billions of dollars in crypto assets, and dozens of other users were granted access to other types of FTX exchange and Alameda wallets. Only a small number of these individuals needed access to these wallets to perform their duties.

Second, the FTX Group failed to effectively enforce the use of multi-factor authentication ("MFA") among its own personnel and corporate infrastructure, increasing the risk that key account credentials would be compromised and critical assets would thereby be vulnerable to unauthorized access. MFA is a basic security mechanism that requires users to provide two or more methods of authentication (for example, a password and one-time passcode sent to a cell phone or email previously associated with the user) to verify their identity and gain access to a system or account. MFA is a widely used and simple technique to mitigate the risks created by password weaknesses and theft, and businesses commonly require MFA to access any corporate systems, and particularly systems holding sensitive data.

The FTX Group did not enforce the use of MFA in connection with two of its most critical corporate services—Google Workspace, its primary tool for email and document storage and collaboration, and 1Password, its password-management program. The deficiency is ironic given that the FTX Group recommended that customers use MFA on their own accounts,[31] and Bankman-Fried, via Twitter, publicly stressed the importance of "2FA [Two-factor authentication]," a form of MFA, for crypto security:

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31 *See* FTX.US Security Features, (Sept. 25, 2021) [http://web.archive.org/web/20210925211745/https:/help.ftx.us/hc/en-us/articles/4408447825815-FTX-US-Security-Features]; FTX.US Security Features, (Aug. 14, 2022) [http://web.archive.org/web/20220814000906/https:/help.ftx.us/hc/en-us/articles/4408447825815-FTX-US-Security-Features]; FTX Security Features, (Sept. 21, 2021) [http://web.archive.org/web/20210921181611/https:/help.ftx.com/hc/en-us/articles/360044838051-FTX-Security-Features-]; FTX Security Features, (July 1, 2022) [http://web.archive.org/web/20220701085013/https:/help.ftx.com/hc/en-us/articles/360044838051-FTX-Security-Features-].

> Daily reminder: use 2FA! 90% of crypto security is making sure you've done the basics.[32]

While he correctly characterized MFA as one of "the basics" in securing crypto assets, the FTX Group did not enforce it in the essential areas described above. And in an important instance in which FTX Group did use MFA—for a corporate email account that handled significant administrative matters—FTX Group management arranged to bypass the MFA requirement.

Third, the FTX Group generally did not use Single Sign-On ("SSO"),[33] an authentication scheme used by companies worldwide to manage user access centrally, enabling users to adopt a single strong password to use across multiple applications, thus reducing the risk of unauthorized access and other harms. Without SSO, among other problems, the FTX Group could not effectively manage or revoke user access, enforce MFA, revoke user access, or prevent users from having many user accounts for different services with separate passwords, which increased the likelihood of compromise.

4. Cloud and Infrastructure Security

The FTX Group also failed to implement appropriate controls with respect to cloud and infrastructure security—that is, controls to protect its cloud services, networks, servers, and "user endpoints" such as desktops and laptops. These controls were crucial for the FTX Group, which essentially "lived" in the cloud, where the exchanges operated and the FTX

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32 Sam Bankman-Fried, (@SBF_FTX), TWITTER (Sept. 12, 2019, 4:11 AM), https://twitter.com/SBF_FTX/status/1172060173604515840.

33 SSO enables users to authenticate their identity once in order to continually gain access to multiple applications and services without having to re-enter login credentials.

Group stored the majority of its assets. The FTX Group's management of its cloud and infrastructure security deviated from standard corporate practices in several respects.

First, the FTX Group generally shared computer infrastructure and IT services among FTX.com, FTX.US, and Alameda, and in doing so, departed from the fundamental security principle of segmentation, whereby business entities and computing environments are separated to minimize the impact of a breach, and exercise greater control over who can access particular systems. Among many examples, the FTX exchanges and Alameda used a single, shared AWS account, meaning that a compromise of that AWS account would expose all three entities' assets to misuse or theft.[34]

Second, while crypto exchanges are notoriously targeted by hackers, the FTX Group had poor or, in some cases, no "visibility" controls to detect and respond to cybersecurity threats. As widely understood across industries, and emphasized by the U.S. government in public advisories, appropriate visibility controls generally include the creation and collection of logs that record and reflect activity within the computing environment, and systems to alert

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[34] Other significant examples of the FTX Group's segmentation failures that increased the risk of harm from an information security problem or compromise include hosting FTX.com and Alameda in the same collaboration platform, Google Workspace, and employing the same password vault tenant, 1Password, for both FTX.com and FTX.US. The FTX Group appears to have recognized the deficiency, because as of the petition date, FTX.US had begun a process of migrating to its own dedicated AWS account; because it did not complete that work, its assets remained within the shared account such that FTX.US lost approximately $139 million of its crypto assets during the November 2022 Breach. In these ways, the FTX Group departed from best practices, which call for segregation and separation of an organization's infrastructure and networks in order to effectively mitigate the risk of, and impact from, unauthorized access to the organization's environment. *See, e.g.*, U.S. CYBERSECURITY & INFRASTRUCTURE SECURITY AGENCY, *Securing Network Infrastructure Devices*, at https://www.cisa.gov/news-events/news/securing-network-infrastructure-devices (noting that "[s]ecurity architects must consider the overall infrastructure layout, including segmentation and segregation" because "[a] securely segregated network can contain malicious occurrences, reducing the impact from intruders in the event that they have gained a foothold somewhere inside the network").

designated personnel to suspicious activity.[35] The FTX Group failed by any measure to maintain such appropriate controls.

Among many examples of its control deficiencies in this area, the FTX Group did not have any mechanism to identify promptly if someone accessed the private keys of central exchange wallets holding hundreds of millions or billions of dollars in crypto assets, and it did not fully enable even the basic features offered by AWS to assist with cyber threat detection and response.[36] In fact, due to the lack of such controls, the FTX Group did not learn of the November 2022 Breach until the Debtors' restructuring advisor alerted employees after observing, via Twitter and other public sources, that suspicious transfers appeared to have occurred from FTX Group crypto wallets. The FTX Group similarly failed to institute any basic mechanism to be alerted to any "root" login to its AWS account, the cloud computing environment where it operated the FTX exchanges and stored keys to billions of dollars in crypto assets, even though such access would provide virtually complete access to the environment.

Third, the FTX Group did not implement controls sufficient to protect its network endpoints, such as laptops and desktops, from potential security threats. The FTX Group had no commonly used technical controls to ensure that employees used their corporate laptops, leaving employees free to use personal devices devoid of corporate security controls. The FTX Group also lacked any endpoint protection tool to monitor cloud-hosted servers for threats, and several

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35 *See, e.g.*, U.S. CYBERSECURITY & INFRASTRUCTURE SECURITY AGENCY, *Weak Security Controls and Practices Routinely Exploited for Initial Access* (last revised Dec. 8, 2022), at https://www.cisa.gov/news-events/cybersecurity-advisories/aa22-137a (noting that "[l]og files play a key role in detecting attacks and dealing with incidents[,]" that "implementing robust log collection and retention" provides organizations with "sufficient information to investigate incidents and detect threat actor behavior," and that effective log management calls for setting up "notifications of suspicious login attempts based on an analysis of log files").

36 For example, Amazon GuardDuty, an AWS feature that supports threat detection, was not enabled at all on FTX.com, and across the entities, VPC flow logs that can capture IP traffic information were only enabled to log the rejected traffic (and only in some networks)—they were not enabled to log the permitted traffic at all. The lack of these and other logs complicated the Debtors' investigation of the November 2022 Breach.

of its critical services did not have the latest security updates installed. For example, to manage inbound internet traffic on a key server, the FTX Group used a version of software that was nearly four years out of date, leaving the server exposed to known vulnerabilities that had been addressed in updated versions of the software. This practice flouted industry standards by which software flaws and vulnerabilities should be remediated in a timely manner.[37]

Fourth, the FTX Group had no comprehensive record from which it could even identify critical assets and services, including employee workstations, software application servers, business data, and third-party cloud and other services it relied upon, leaving it with little to no visibility into what it needed to secure, let alone how to best secure it.[38] Indeed, to understand and gain necessary access to the full scope of services that the FTX Group used, the Debtors had to analyze financial records such as bills paid to vendors, and search through employees' email and chat messages. Although the FTX Group's designated IT professional began creating an inventory of electronic devices issued to employees, and stressed to Singh (who was supposedly in charge of the FTX's Group's cybersecurity) the importance for security purposes of having Singh and other FTX Group senior management identify in the inventory the electronic devices they were using, neither Singh nor other senior management provided the requested information.

5. Application and Code Security

The FTX Group did not implement controls sufficient to protect sensitive data relating to its applications, including its application code, from vulnerabilities and attacks. While essential in any context, securing such data was particularly critical for the FTX Group, which

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37 *See* NIST Special Publication 800-53 Revision 5: SI-2: Flaw Remediation.

38 The NIST identifies the development and maintenance of an inventory of information systems (including hardware, software, and firmware) that are owned, leased, or operated by an organization as a standard security practice and control. *See* NIST Special Publication 800-53 Revision 5: PM-5: Information System Inventory.

used multiple applications with access to sensitive data and assets, including customer data, financial data, and crypto wallets. In managing its application and code security, the FTX Group departed from standard practices in several ways.

First, while it is widely recognized that sensitive data should be protected through encryption and appropriate access controls,[39] the FTX Group failed to adopt these basic controls to secure its "application secrets," that is, the highly sensitive data such as passwords, API keys,[40] and private keys used by its applications. Protecting these secrets is paramount because they are frequently the target of malicious actors who may use them to gain access to additional data and assets. With respect to the FTX Group, access to such secrets could enable someone to make transfers of billions of dollars' worth of crypto assets from hot wallets or third-party crypto exchanges. Nonetheless, among many examples of its deficient controls in this area, the FTX Group simply stored certain secrets—including the private keys and seeds to Alameda's crypto wallets—in unencrypted files to which numerous employees had access, and kept hundreds of other secrets—including passwords for crypto wallet nodes, API keys for crypto exchanges, and credentials for sensitive email accounts—in source code repositories from which they were widely accessible.[41]

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39 *See* NIST Special Publication 800-53 Revision 5: SC-28: Protection of Information at Rest.

40 Application Programming Interface, or "API," keys are credentials used to authenticate to third-party services, including, for example, other crypto exchanges.

41 While a senior developer subsequently deleted a file containing these secrets from the repository, the developer did not remove the file from the code history in the repository, contrary to the recommended practice of GitHub, where the repository was maintained. As a result, the file continued to remain exposed to anyone who accessed the code repository.

Second, the FTX Group failed to adopt certain standard controls in order to ensure the integrity of its code.[42] For example, there was no effective process for securely introducing, updating, or patching software, and no procedures, such as scanning, to continually ensure the integrity of the code running on FTX Group servers. Thus, among many other harms, the FTX Group was highly vulnerable to software "supply chain" attacks in which malicious actors insert vulnerabilities into third-party software in order to compromise any organization that uses the software.[43] Furthermore, with only minimal code review and testing procedures in place, and no focus on continuous security testing, the FTX Group did not review, test, or otherwise deploy its code in a manner that sufficiently ensured that it was functioning as expected and free of vulnerabilities that might be leveraged by malicious actors.

6. Debtors' Work to Identify and Secure Crypto Assets in the Computing Environment

As a result of FTX Group's lack of appropriate documentation and recordkeeping, the Debtors had to undertake significant efforts to identify, access, and secure crypto assets from the FTX Group's computing environment. The lack of records was particularly challenging because cryptocurrency keys are simply strings of alphanumeric characters that may otherwise be indiscernible in a computing environment. The Debtors' challenge was compounded by the

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42 *See, e.g.,* NIST Special Publication 800-53 Revision 5: SA-12: Supply Chain Protection ("Verify the integrity of code obtained from external sources before it is deployed on the system"); NIST Special Publication 800-53 Revision 5: SA-11: Developer Security Testing and Evaluation ("Require developers to test their code for security vulnerabilities before it is deployed into production"); NIST Special Publication 800-53 Revision 5: SA-3: System Development Life Cycle ("Incorporate security requirements into the system development life cycle and ensure that security is addressed in all stages of the life cycle").

43 The most prominent example of a software supply chain attack is the 2020 SolarWinds attack, in which Russian state-sponsored actors compromised SolarWinds software, used widely throughout the U.S. public and private sectors, in order to gain access to the networks of government agencies and companies that downloaded the software.

enormous time pressure that they faced due to a confluence of circumstances that resulted from other FTX Group control failures described above:

- The Debtors took over responsibility for a computing environment that had been compromised. A malicious actor had just drained approximately $432 million worth of crypto assets in hours; the FTX Group did not have the controls to detect the compromise, much less to stop it; and due to the FTX Group's deficient controls to secure crypto assets, the Debtors faced the threat that billions of dollars of additional assets could be lost at any moment.

- Compounding the challenge, and reflecting additional FTX Group control deficiencies, the Debtors' cybersecurity experts found that the FTX Group had no written plans, processes, or procedures that explained the architecture or operation of its computing environment or storage of crypto assets.

- Even as they raced to secure the environment in these challenging circumstances, the Debtors separately faced the risk that individuals in possession of private keys to crypto assets could unilaterally transfer those assets. In other words, securing the environment would not be enough: until the crypto assets were transferred to cold storage, they could be taken by anyone who had the private keys. Indeed, the day after the November 2022 Breach, without the Debtors' authorization, and at the direction of Bahamian authorities, Bankman-Fried and/or Wang used private keys they had in their possession to transfer hundreds of millions of dollars' worth of FTT, SRM, MAPS and other tokens out of Debtor wallets and into cold wallets in Bahamian custody.[44]

- Compounding all of these challenges, and as the Debtors worked to identify and access crypto assets with no "map" to guide them, the Debtors had to engineer technological pathways to transfer many types of assets they identified to cold storage because the FTX Group had never engaged in the computer engineering necessary to make those transfers possible.

The Debtors' work to identify and secure these crypto assets required the combined efforts of experts in computer engineering, cryptography, blockchain technology, cybersecurity, IT architecture, and cloud computing. Examples of the work that was undertaken to identify crypto assets in the environment—ultimately, to date, over a billion dollars' worth of crypto assets as to which few or no records existed—include the following:

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[44] Due to price declines, illiquidity, and other issues, these tokens are currently worth a small fraction of the amount of their estimated worth at the time of transfer.

- Experts developed novel code to identify crypto assets and keys that were stored in over a thousand servers and IT resources that constituted the FTX Group computing environment. Millions of these keys had no labelling or description that reflected their nature or use, requiring further analysis and blockchain analytics. Through this work, the Debtors recovered hundreds of millions of dollars' worth of crypto assets not reflected in any recordkeeping system of the FTX Group.

- Experts identified and recovered crypto wallets used for the FTX Group's extensive trading operations, and developed scanning tools and dedicated software to identify Alameda's DeFi portfolio[45] as to which few centralized records have been identified. Using these tools, the Debtors have identified tens of millions of dollars' worth of crypto assets that are in the process of being recovered.

- Experts learned that the FTX exchanges had experienced difficulty with the accuracy of code that the FTX Group had engineered to identify and transfer assets from over 10 million wallets of exchange customers into omnibus accounts. Surmising that crypto assets could still remain scattered among the wallets due to the inaccuracy of that code, experts developed code that would automatically both identify any crypto assets across blockchains that remained among the more than 10 million wallets, and then automatically transfer those assets to cold storage. Through the operation of this code alone, the Debtors have identified and secured over $140 million in crypto assets of the estate.

V. Conclusion

The FTX Group's profound control failures placed its crypto assets and funds at risk from the outset. They also complicated the Debtors' recovery efforts, although the Debtors have made and continue to make substantial progress in that regard. To date, through the work described above, the Debtors have recovered and secured in cold storage over $1.4 billion in digital assets, and have identified an additional $1.7 billion in digital assets that they are in the process of recovering. The Debtors will continue to provide updates on their ongoing recovery efforts and investigation.

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[45] A Decentralized Finance (DeFi) portfolio encompasses a range of investments, holdings, and trading positions in blockchain-based financial applications that operate in a decentralized, peer-to-peer manner, rather than relying on centralized exchanges, brokerage firms, or banks.

Exhibit E

Liquid Value Fund I, LP

Sino Global Capital *in partnership with* FTX

SINO GLOBAL CAPITAL

FTX

Information Current as of January 5, 2022

Private & Confidential - Not for Distribution

Executive Summary

- **Liquid Value Fund I** is a stage agnostic closed-ended VC fund that invests in blockchain technology, cryptocurrencies and adjacent infrastructure.

SINO GLOBAL CAPITAL

Sino Global Capital is an Asia-based VC that has an **unrealized multiple of 31.8x** on mark-to-market investments that were made with prop capital over the last 15 months.

SGC is the **GP responsible for all fund discretionary decisions** of Liquid Value Fund I.

FTX

FTX is a cryptocurrency derivatives exchange that handles over $10B in daily volume.

FTX will serve as **Co-GP** and **anchor LP** of Liquid Value Fund I, providing significant strategic advantage. FTX will provide up to $60m in capital contributions.

- Fund I has a current portfolio of 22 investments, including an investment with a **14x markup and one with a 31x markup.**
- GP will return 100% of LP capital before taking carried interest.
- Substantial investment weight given to **FTX, Solana, and Serum** ecosystems.

SINO GLOBAL CAPITAL

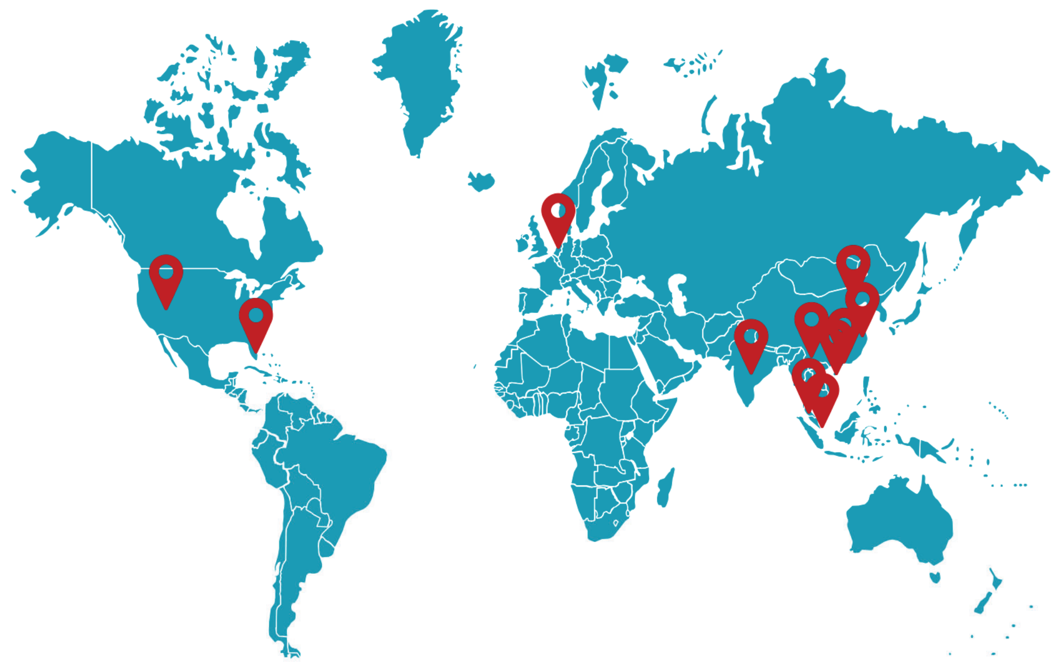
FTX

Key Facts

Sino Global Capital – Key Facts:

- Founded in 2015 and exclusively crypto-focused since early 2017.
- Writes strategic checks to best-in-class blockchain and digital asset projects.
- Known for strong Asia-based networks and ability to bridge East-West gaps.
- Prop AUM of more than $300M.

Sino Global Capital – Team Member Distribution:



Note: Beijing (1), Shanghai (1), Kunming (2), Hong Kong (1), Kuala Lumpur (1), Singapore (1), The Hague (1), Miami (1), Utah (1), USA (1), Bengaluru (2).

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SINO GLOBAL CAPITAL

FTX

Team

Managing Partner & CEO

Matthew Graham

Matthew has seven years of mainland China investment banking experience with a focus on representing international technology companies in China for strategic partnership and investment. Previously Matthew working in financial services as trader. @mattysino

Partner

Haru Chen

Haru is a serial entrepreneur and investor from China's Yunnan Province. She has been focused on blockchain since 2015, and has invested in numerous successful projects including Ethereum, Neo, Ontology, EOS, Ada, RSK, and AE.

Chief of Staff

Dermot McGrath

Dermot has over 5 years of China experience focusing on corporate finance, investment analysis, deal making and technology commercialization. Before joining Sino Global Capital, he worked as a Finance Manager for a blue-chip Chinese Fortune 500 company. @dermotmcg

COO & Head of Investment

Ian Wittkopp

Ian has 6 years of experience working at the Bureau of Labor Statistics in Washington, D.C. in both the Budget and Economic Indicators Offices. Before joining SGC, Ian also consulted for numerous MNCs including Volkswagen-China and was a Product Manager at an InsurTech. @ianw888

General Counsel & Head of IR

Patrick Loney

Over seven years experience as a lawyer, merchant banker and entrepreneur in mainland China. Serving as General Counsel and fundraiser for SGC. Fluent in English and proficient in Mandarin. @PatrickLoneyo

Senior Investment Associate

Hans Xiang

Hans has over 3 years' experience in the blockchain industry. He completed his BSc in Finance & Control at The Hague University of Applied Sciences and has recently finished his MSc in Financial Technology at The University of Glasgow. He has a multilingual background in English, Chinese and Dutch. @OmniscientAsian

Vice President - Communications

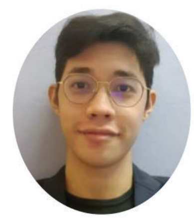
Sally Wang

Sally has 6+ years combined experience in communications and crypto. Started as a Journalist in China state-owned media CGTN and found her passion for crypto. She has guided multiple crypto brands including TokenInsight, Velo Labs, DCG's Foundry etc. @sallywang666

Investment Associate

Thomas Tang

Thomas has 2+ years of experience in traditional finance, previously working at Citibank across multiple verticals including equities, credit & risk, portfolio & asset management. Thomas graduated from the London School of Economics in 2019, majoring in Accounting and Finance. @TTxox



Investment Associate

Wei Han

Wei Han has over 6 years of product development experience in the Fintech industry. An early participant to the DeFi space, he was top 100 in the Degen Score leaderboard. Now, as a full-time investment associate at SGC he helps contribute to deal sourcing and research. @cweihan

Investment Analyst

Ben Poynor

Ben has four years of crypto experience, three years in backend web development, and two years in venture capital. @0xPemulis

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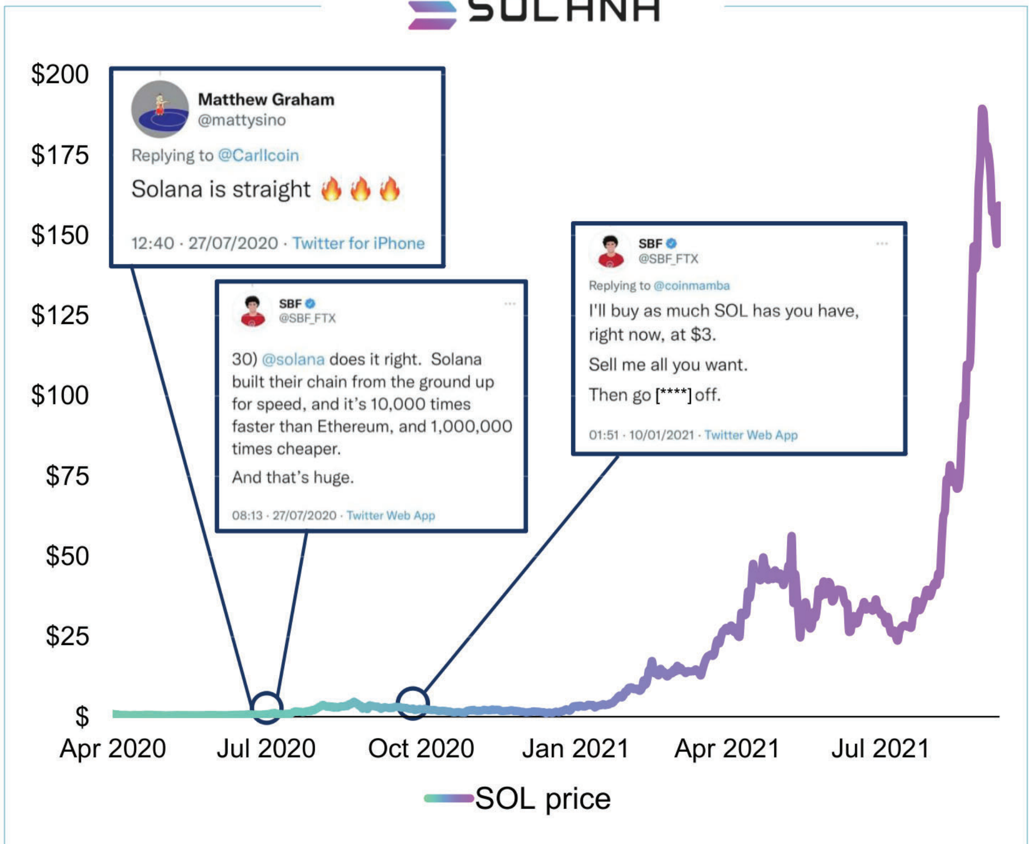
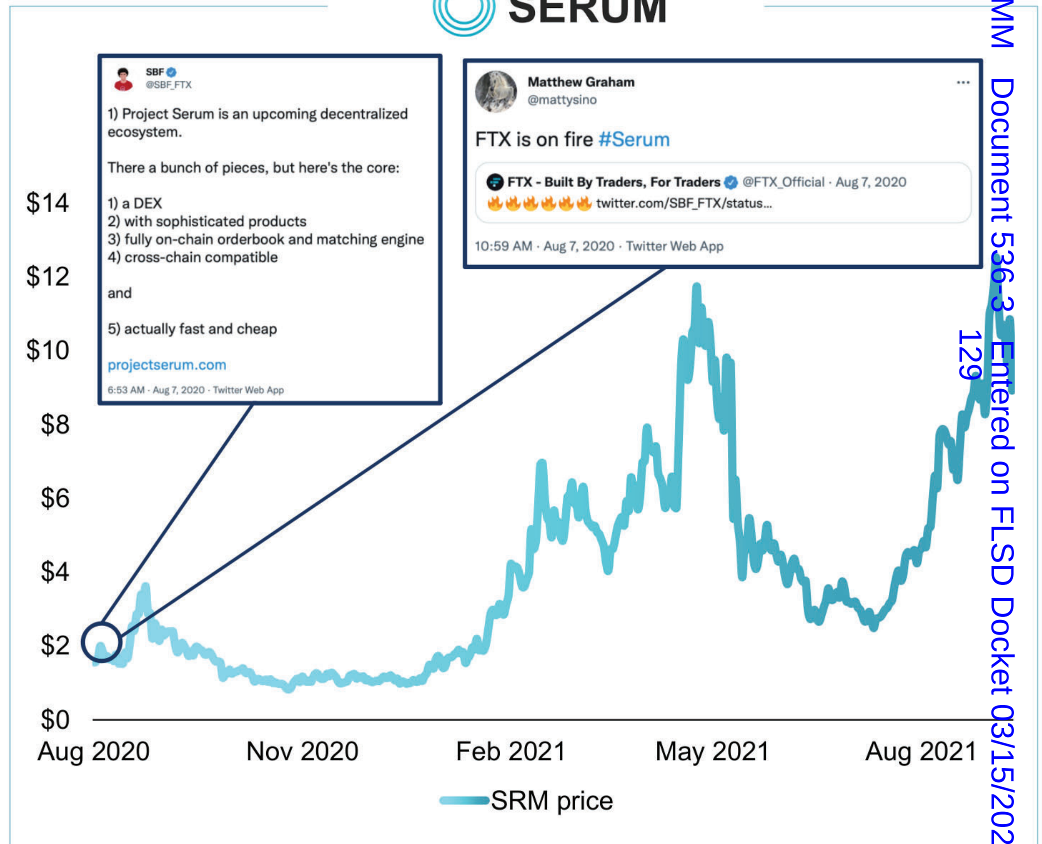
SINO GLOBAL CAPITAL

FTX

We invest early and with conviction





SINO GLOBAL CAPITAL

FTX

Investments by Geography

North America

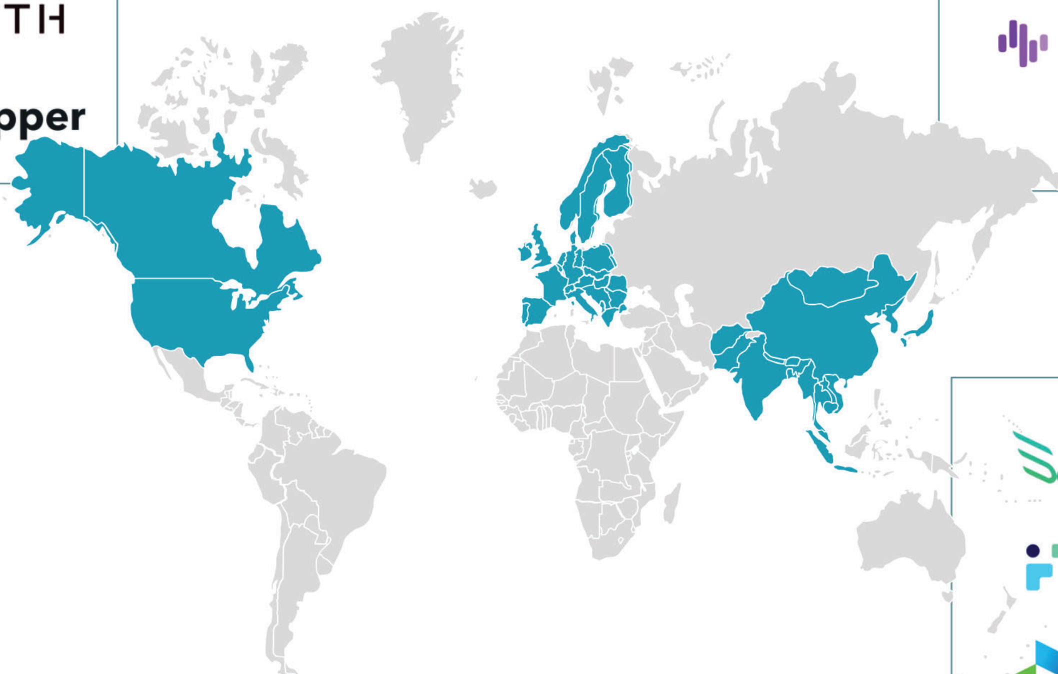
FTX US
PYTH
SOLANA
Zapper

Europe

Mintbase
XDEFI WALLET
zignaly
jet
WINTERMUTE

Distributed

OXYGEN
MAPS.ME
Parrot
BONFIDA



Asia

MERCURIAL FINANCE
SERUM
Impossible Finance
Mask
Delta. Exchange
FTX

19 total investments

Return Performance

31.8x* on invested capital

Mask
OXYGEN
MERCURIAL FINANCE
MAPS.ME
SERUM
Parrot
Delta. Exchange
SOLANA
Impossible Finance
BONFIDA
zignaly

Mark-to-market investments

1.0x* on invested capital
(valued at cost)

PYTH
XDEFI WALLET
Mintbase
WINTERMUTE
jet
FTX
FTX US
Zapper

Investments with no market price

*Note: See Appendix I for details

SINO GLOBAL CAPITAL

FTX

SINO GLOBAL CAPITAL | FTX

Fund & Manager

- Liquid Value Fund I, LP (the "Fund") is **managed by Sino Global Capital ("SGC") in partnership with FTX**.
- SGC will make **all discretionary decisions** regarding the management of the Fund.
- FTX will be **co-GP and anchor LP**. The fund represents the first time that FTX has allocated capital to an outside VC manager.
- SGC's mark-to market prop capital investments have a **31.8x unrealized multiple**.
- SGC has **22 deals** (and counting) in the Liquid Value Fund I portfolio.

SINO GLOBAL CAPITAL

Matthew Graham
CEO | @mattysino

SGC is an established crypto investor with deep roots in Asia and within the rapidly expanding Solana ecosystem. Founded by Matthew Graham, SGC invests in leading crypto teams around the world.

FTX

Sam Bankman-Fried
CEO | @sbf_ftx

FTX is a crypto finance empire built by Sam Bankman-Fried ("SBF") & includes FTX Int'l ($25B crypto exchange), FTX.US (crypto exchange), Alameda Research (prop trading) & Alameda Ventures (prop VC).

SINO GLOBAL CAPITAL | FTX

Key Advantages

Competition for the best deals has increased; LV Fund I has significant advantages to access the best deal flow

Partnership with FTX

- FTX as a co-GP and anchor LP unlocks significant strategic advantage.
- Rapidly growing brand recognition in US through high profile sponsorships of Miami Heat Arena, MLB and star athletes including Tom Brady, Steph Curry and Lewis Hamilton

Best-in-class reputation and expertise

- Crypto is an industry with large amounts of "vaporware."
- SGC investment signals trustworthiness and quality
- SGC provides key strategic relationships and post-investment support to portfolio.

Significant mindshare in Solana ecosystem

- SGC has invested broadly in Solana infrastructure
- Co-hosted a product demo day with Solana team to showcase best-in-class teams.
- Solana Ecosystem Outlook with SBF (FTX founder), Anatoly Yakovenko (Solana founder) and Matt (SGC founder)

Strong Asia-based network and geographic diversity

- SGC provides a strong Asia network and expertise, while also bridging Western networks.
- Being an Asia-based VC provides a significant advantage in winning deals.

Key Advantages: FTX

Forbes Subscribe Sign In

#32 Sam Bankman-Fried

Founder, FTX

PHOTO BY GUERIN BLASK FOR FORBES

REAL TIME NET WORTH $22.5B

as of 10/11/21

- Sam Bankman-Fried is the richest person in crypto, thanks to his FTX exchange and Alameda Research trading firm.

THE WALL STREET JOURNAL.

MARKETS | DEALS

Crypto Exchange FTX Valued at $18 Billion in Funding Round

Investors include SoftBank, Sequoia Capital and Daniel Loeb's Third Point hedge fund

Cryptocurrencies

Tom Brady and Gisele Bündchen Take Equity Stake in Crypto Firm FTX

By Vildana Hajric + Follow

June 29, 2021, 8:00 PM GMT+8

Updated on June 30, 2021, 3:10 AM GMT+8

- ‘They were both really into it,’ says FTX's Sam Bankman-Fried
- Tampa quarterback tweets Monday that ‘laser eyes didn't work’

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SINO GLOBAL CAPITAL FTX

Key Advantages: FTX

FTX as a Co-GP and anchor LP unlocks significant strategic value through FTX ecosystem collaboration

Sam Bankman-Fried is the CEO or founding member of the below entities

FTX

- Raised $1.32B in 2021; valued at $25B.
- Lists over 250 futures and 100 spot markets.
- Avg daily volume of $12–15B.
- Official sponsor of Major League baseball and Miami Heat.

FTX US

- Subsidiary of FTX, focused on the U.S. market.
- Acquired LedgerX to expand offerings.
- Controls a CFTC derivatives clearing organization license letting it host complex contracts on the platform.
- Avg daily volume of $200–250M.

FTX

ALAMEDA RESEARCH

- Best-in-class OTC desk & market making services
- Manages over $1B in digital assets
- Trades between $1-$10 billion per day across thousands of products

SERUM

- First decentralized, on-chain, central limit order book.
- Recently launched permissioned markets setting.
- $40M+ in daily volume (trailing 7 days)

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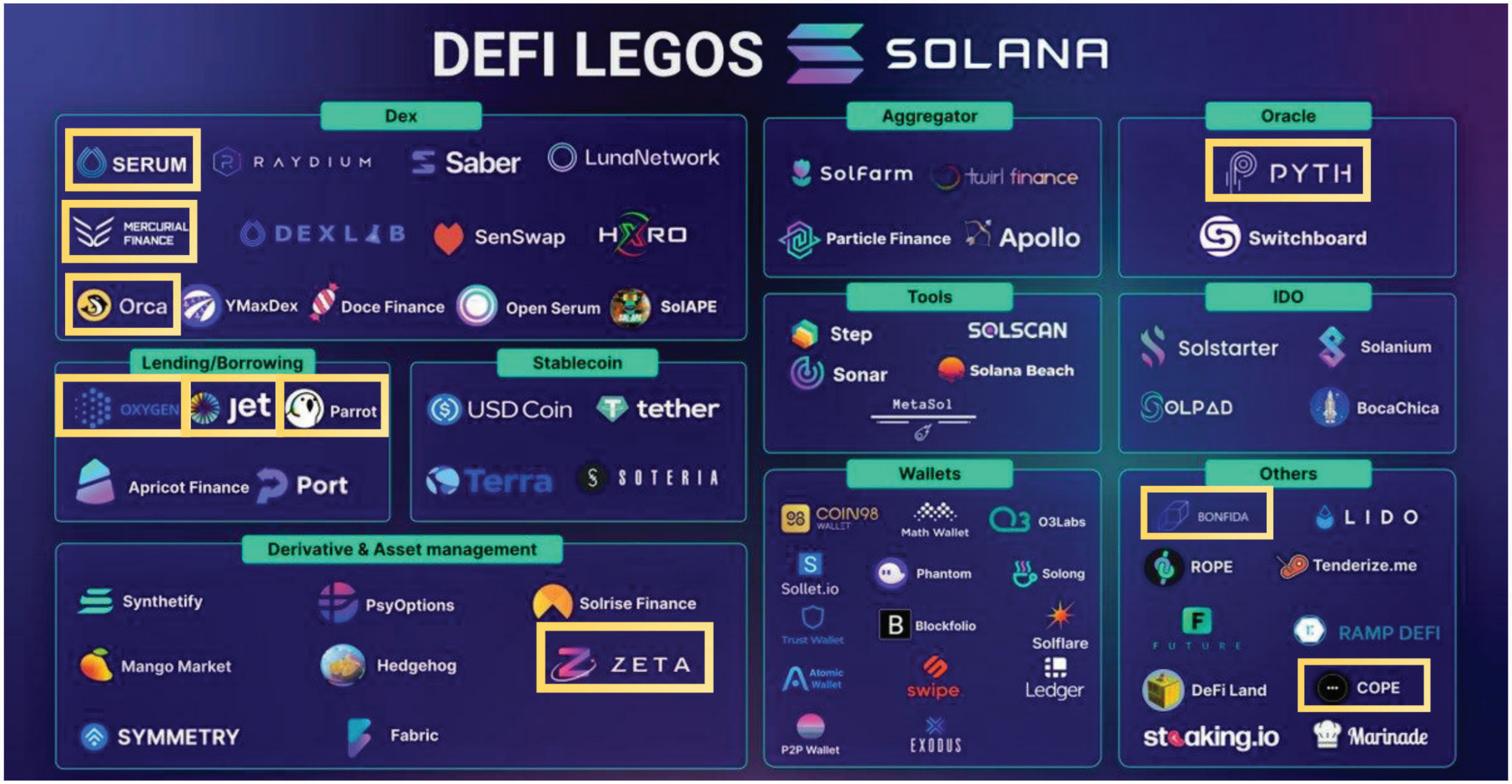
SINO GLOBAL CAPITAL

FTX

Key Advantages: Solana Mindshare

SGC has gained significant mindshare in the Solana ecosystem investing in key projects and infrastructure



[See Solana Demo Day hosted and organized by SGC]

Key Advantages: Reputation

SGC has spent years cultivating deep ecosystem relationships; SGC on a cap table is signal that a project is high quality

Reputation among crypto users and other investors:

View SGC as long-term, high trust, community member

Aello Goldfinger @AelloFerox · Sep 14
Replying to @SinoGlobalCap and @gopartyparrot @BabsKhalizo
I know VC's stand to gain the most shilling their seed round investments to the public but

1) Sino is built different
2) everything they touch goes parabolic.

Free alpha.. You're welcome.

Read their Solana thesis on medium. 'tis a goldmine.

camstuff @CamTuff_ · Sep 21
Replying to @mattysino
i'm ngl, you're right.

few participate in the community like sino

you announcing an investment in something turns a lot of heads.

King @King__Defi · Sep 21
Replying to @mattysino
My brother @DeeCrypto8 and I have a channel in our discord dedicated to Sino investments. Between you and @SinoGlobalCap's tweets, you guys have made us some serious money. Thank you 🤝

Reputation among builders and portfolio companies:

View SGC as taking extra effort post-investment

Mercurial Fi @MercurialFi · Jun 16
Just had a great update call with @TTxOx @mattysino and the rest of the @sinoglobalcap gang.

Besides being one of the most helpful and proactive investors in the space, they are very early supporters of @FTX_Official, @Solana, @ProjectSerum and many other cornerstone projects.

3 14 90

Mercurial Fi @MercurialFi · Jun 16
If you are a Solana based project looking for funding, they need to be at or near the top of your list.

Protip: @mattysino will insist that he is a very serious guy, but don't worry, he's actually really fun. 🥳

Bryan Pellegrino – CEO of LayerZero Labs
Sino Global Capital's founder friendly culture, deep network in both the east and west, and proven track record of extremely high commitment to long-term vision with portfolio companies makes them one investor every company building something real in this space should want in their corner

Parr⊙t 🌕
@gopartyparrot

Aside from @mattysino memes, a strategic support, @SinoGlobalCap had gone beyond the call of duty in helping @gopartyparrot.

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SINO GLOBAL CAPITAL

FTX

Portfolio Investments (Page 1 of 2)

Project	Category	Description
ORCA	Decentralized Exchange	**Orca** is the easiest, fastest, and most user-friendly automated market marker on Solana, a human-centred DEX built to optimise for simplicity and composability.
LayerZero.	Cross-Chain Architecture	**LayerZero** is an omnichain interoperability protocol that unites decentralized applications across disparate blockchains.
Clearpool	Institutional Liquidity	**Clearpool** is a decentralized capital markets ecosystem, where institutions can borrow uncollateralized liquidity, and LPs get attractive rewards.
ZETA	Decentralized Derivatives	**Zeta** is the premier under-collateralized DeFi options platform, providing liquid derivatives trading to individuals and institutions alike.
VYBE NETWORK	Blockchain Infrastructure	**Vybe Network** is the premier data-processing & analytics protocol for the Solana & Serum community.
SOLCERY	Gaming Infrastructure	**Solcery** is a decentralized games hub on Solana, connecting players, developers and creators in one place.
PHANTASIA	Sports Gaming	**Phantasia** is the first of its kind Fantasy Sports Platform made for players and powered by Blockchain technology.

Portfolio Investments (Page 2 of 2)

Project	Category	Description
paraswap	DeFi Aggregator	**ParaSwap** aggregates decentralized exchanges and other DeFi services in one comprehensive interface to streamline and facilitate users' interactions with DeFi.
pSTAKE	Liquid Staking	**pSTAKE** is a liquid staking protocol unlocking the liquidity of staked assets which can be used in DeFi to generate additional yield.
Atomic Form	NFT Hardware	**Atomic Form** builds hardware and software for NFTs and Web3 media, bridging physical and digital worlds through on-chain verification, participation and display.
NYAN HEROES	Decentralised Gaming	**Nyan Heroes** is a NFT play-and-earn metaverse built on Solana featuring a third-person shooter battle royale game.
BETDEX	Sports Betting	**BetDex** is a global decentralized sports betting protocol that is permissionless, allowing anyone to build applications on top.
XDEFI WALLET	Wallet Infrastructure	**XDEFI Wallet** is a multi-chain wallet built for DeFi users and NFT lovers with native integrations on THORChain, Ethereum, several EVM networks and Terra.
cypher	Decentralized Exchange	**Cypher** is a decentralized synthetic asset protocol on the Solana blockchain that facilitates price and demand discovery in nascent markets.
marginfi	Trading Protocol	**MarginFi** allows traders to seamlessly trade across Solana protocols through one global margin account.

SINO GLOBAL CAPITAL

FTX

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Solana

Solana is a built to **optimize speed, volume, cost efficiency and composability**, which we believe will drive mass adoption of Solana-based crypto services.

Speed/Volume.
Currently can process ~50,000 tps
Theoretically scalable to ~710,000 tps

Cost efficiency.
Ultra-low fees ($0.0008/tx).

Composability.
Highly composable infrastructure and developer tools accelerates innovation

Source: DeFi Llama

Watch: Matthew Graham, SBF and Solana founder Anatoly Yakovenko discuss upcoming trends in the Solana ecosystem. (September 10, 2021)
Read: Solana's roadmap for increased decentralization and scaling.

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Solana

Solana is a highly performant chain with the ability to scale transactions

							Built on Ethereum				
	Solana	Polkadot	Cardano	Cosmos	Avalanche	Algorand	Binance Smart Chain	Ethereum	Ethereum 2*	Arbitrum	Optimism
TPS	50,000	400	250	1,400	4,500	1,000	100	30	100,000*	2,000	2,000
Finality time	0.4 seconds	12-60 seconds	~20 seconds	1-3 seconds	1-5 seconds	4.5 seconds	75 seconds	5 minutes	20 - 60 seconds	Up to 1 week	Up to 1 week
Avg tx fee	$0.0008	$0.46	$0.38	$0.03	$0.03	$0.001	$0.01	$20-200+		$3-12	$1-5
# of Validators	1,083	297	2,076	125	1,025	1,254	21	3,023	242,772	N/A	N.A
Type	Layer 1	Sharding	Layer 1	Layer 1	Layer 1	Layer 1	Layer 1	Layer 1	Sharding	Layer 2 (Optimistic rollup)	Layer 2 (Optimistic rollup)

* ETH2.0 stats are theoretical

Note on Decentralization: At ~1,000 nodes, Solana is often criticized for being "centralized." We agree Solana needs more independent nodes and believe it will as it grows. However, mass adoption (among devs, consumers and institutions) will not hinge on decentralization but rather on speed, volume, cost and composability.

Serum

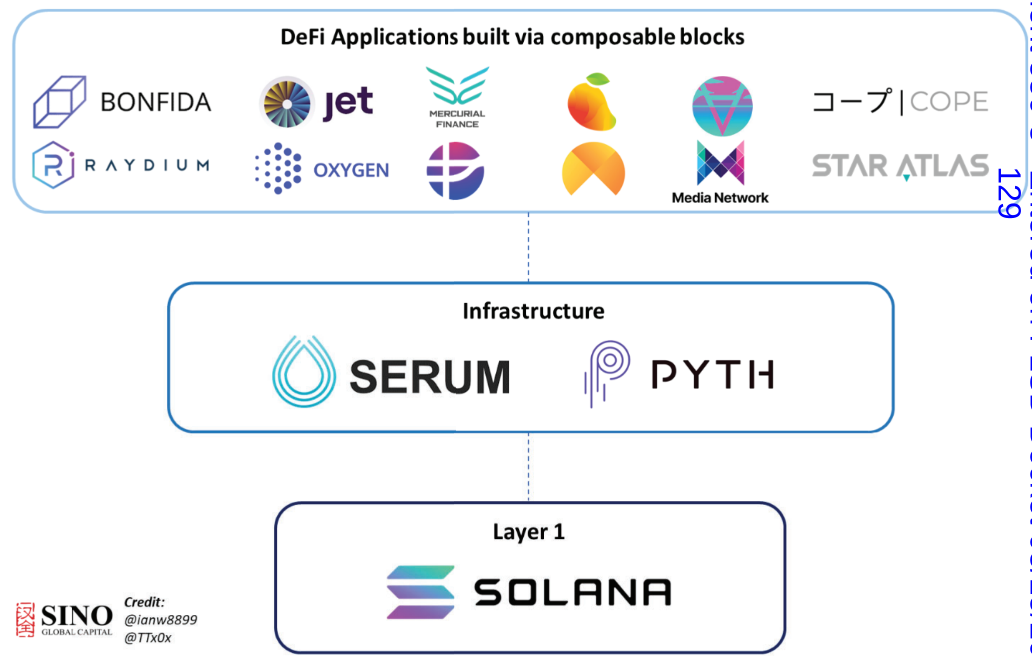
In August 2020, FTX launched Serum, the first DEX using a fully decentralized central limit orderbook (CLOB). Serum enables transaction bundling and potential for advanced, automated investment strategies.

Serum and its ecosystem are highly composable

Applications use Serum as an economic clearing mechanism, share Serum's common liquidity pool and access services offered by one another.

Key Benefit

This allows projects to focus their efforts on refining their own product (i.e. risk engine, margin engine, front end) and business model, and to launch, pivot and iterate as needed.



*Serum Ecosystem project examples in Appendix

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Adjacent Investment Opportunities

We continue to invest in projects that are adjacent to our core focus of DeFi and the Solana ecosystem. Typically, these decisions are made based on the quality of the founders and teams at these companies.

FTX

Cryptocurrency derivatives exchange built by traders, for traders

- Offers innovative products including industry-first derivatives, options, volatility products and leveraged tokens
- Strives to be robust enough for professional trading firms and intuitive enough for first-time users

Mintbase

Global NFT platform and marketplace

- "Shopify for NFTs": allows anyone to create their own NFTs and marketplace while abstracting away all complexity
- Innovative auction types and token features such as spawning, self-destructing and embedded value tokens

WINTERMUTE

Leading Crypto market maker and proprietary trading firm

- Crypto-native market maker focused on creating efficient, liquid, transparent markets
- Provides liquidity algorithmically more than $5B+/day across most cryptocurrency exchanges and trading platforms

SINO GLOBAL CAPITAL FTX

Offering Overview

The investments we make out of **Liquid Value Fund I** will leverage SGC's strong reputation, experience, and network while adding the immense strategic benefits of a best-in-class partner like FTX.

We plan to continue to cultivate high ROI opportunities in the FTX, Solana, and Serum ecosystems while broadening into other areas of innovation.

Service Providers

Cayman Counsel:	WALKERS
LPA/PPM:	Cole-Frieman & Mallon LLP
Tax:	BPM
Administrator:	STOVER

Liquid Value Fund I

General Partners	SINO GLOBAL CAPITAL; FTX
Size	$175M Target; $200M Hard Cap
Minimum Ticket	$1 million
Term	Close-ended: 10 (+1) years
Investment Period	4 years (ideal is 18–30 months)
Distribution	100% of LP capital returned before GP carry
Mgmt Fee / Carry	2% / 20%
Initial Closing	December 15, 2021 ($10m; FTX)
Investment Stage	Early-stage; Follow-on; Private "treasury rounds"; Select big tickets

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SINO GLOBAL CAPITAL

FTX

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Contact & Data Room

Data Room Contents:

- PPM
- LPA
- Subscription Agreement
- Team Track Record
- Warehouse/Portfolio Materials
- Organizational Documents

Contact and Data Room Access:

Detailed descriptions of the offering, our investment track record, warehoused and portfolio investments, and subscription documents can be found in the Fund's data room.

Please email investors@sinoglobalcapital.com to request access.

SINO GLOBAL CAPITAL FTX

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SINO GLOBAL CAPITAL

FTX

6. Appendix

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Appendix I

SINO GLOBAL CAPITAL

FTX

SGC Prop Track Record

Mark-to-Market Investments

Company	Token ticker	Investment Amount ($000s)	% of prop cap	Mark-to-Market ($000s)	MOIC
Serum	SRM				114.7x
Mask Network	MASK				42.9x
Bonfida	FIDA				35.5x
Delta Exchange	DETO				5.4x
MAPS	MAPS				11.5x
Oxygen	OXY	Redacted – See Data Room			7.6x
Solana	SOL				15x
Zignaly	ZIG				8.6x
Mercurial Finance	MER				3.2x
Impossible Finance	IF				28.7x
Jet Protocol	JET				19x
Party Parrot	PRT				4.3x
Total		**$4,080,000**	**38%**	**$129,705,997**	**31.8x**

Investments with no public market price

Company	Token ticker	Investment Amount ($000s)	% of prop cap	Mark-to-Market ($000s)	MOIC
Mintbase	-				1x
Wintermute	-				1x
Zapper.fi	-	Redacted – See Data Room			1x
Pyth	-				1x
FTX	-				1x
FTX.US	-				1x
Total		**$6,772,842**	**62%**	**$6,772,842**	**1x**

Note: The multiple of 31.8X was calculated based on 12 investments using the following formula: [Current market price of all SGC primary or private deals which are actively traded with a quoted market price] / [Total invested capital on such deals]. The 6 primary or private deals for which there is not a current public market price are excluded from the calculation, although, if comps were used, many of these investments would show significant gains.

Finally, secondary market purchases of Solana (at a blended price below $2) and FTX's exchange token FTT (at a blended price below $1) are not included in the above estimates. As of January 5, 2022, Solana was traded at $149.31 and FTT at $37.23.

Back to "Return Performance"

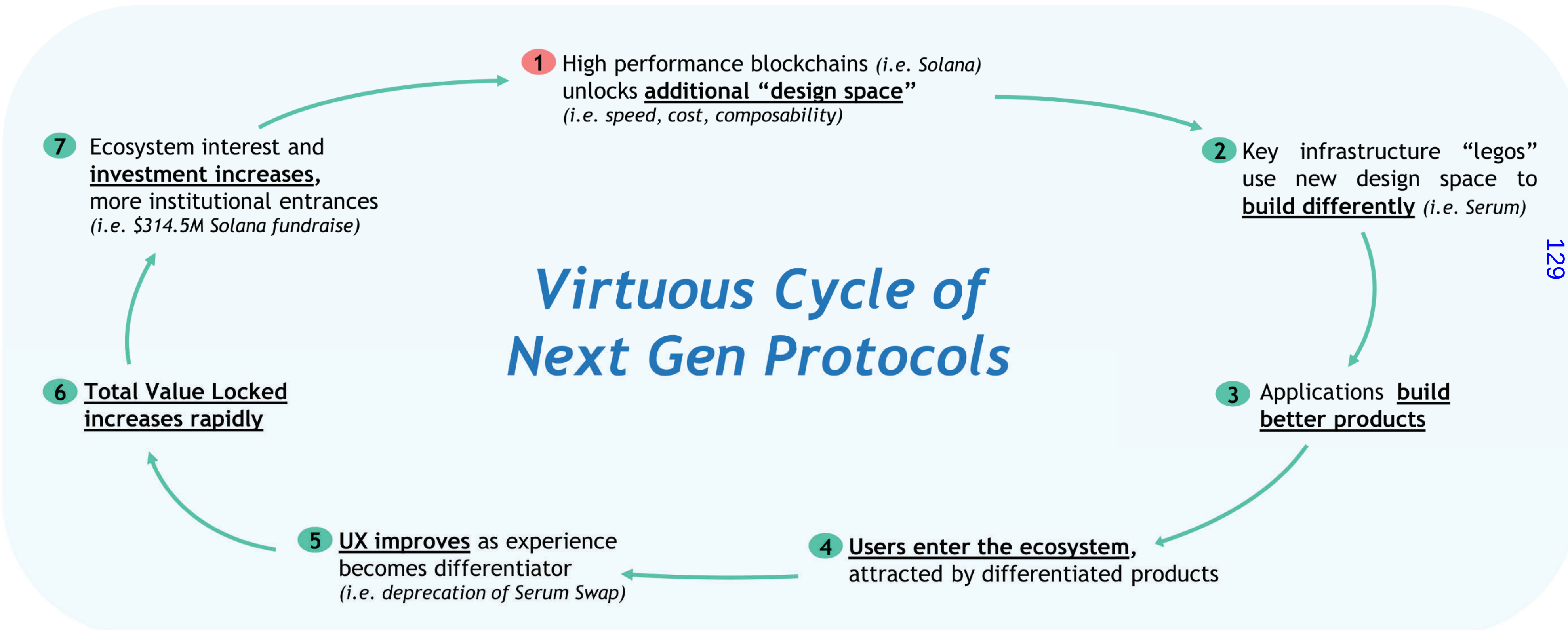
Appendix 2

SINO GLOBAL CAPITAL

FTX

Solana Advantage Visual

High performance next generation blockchains unlock a virtuous cycle leading to mass adoption



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SINO GLOBAL CAPITAL FTX

Interesting Solana Ecosystem Projects

Product	Industry	Description
PYTH	Data Oracle	To compete with NASDAQ as a provider of real time data to financial firms, Jump Capital identified Solana as the only viable blockchain on which to launch Pyth, an oracle that feeds real-time data from around the world directly into Serum and registered on the Solana blockchain.
Serum	Infrastructure	FTX chose Solana on which to build Serum, the first ever decentralized central limit order book (CLOB) on which other financial apps are built. We discuss Serum in more detail in the following slides.
jet	DeFi	Taking advantage of Solana's highly composable blockchain, Jet Protocol built out a borrow-lending protocol available for its own users and also other projects within the Serum ecosystem. Jet will even allow for cross chain rate arbitrage powered by Solana and Serum.
Parrot	DeFi	Parrot Protocol is a liquidity and lending network that uses their own stablecoin, PAI, to centralize exposure taken across multiple collateral types. The team chose Solana because allows multiple processing steps to be combined into a single transaction, enabling complex collateral types to be efficiently liquidated.
AUDIUS	Music Streaming	Audius is a blockchain-powered, decentralized music streaming service with social media features. It is owned and run by an open-source community of artists, fans, and developers. The founders of Audius chose Solana for its high-performance and ability to house a platform with the potential need to scale rapidly.
STAR ATLAS	Gaming	Star Atlas is a next-generation video game involving space exploration, territorial conquest, political domination, and more. It features a decentralized economy and plans to evolve into a metaverse. (Watch trailer). The team chose Solana because it is the only blockchain with the computational bandwidth akin to the modern internet.

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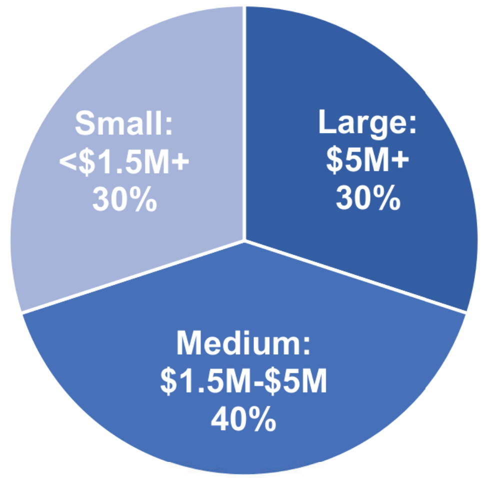
SINO GLOBAL CAPITAL FTX

Portfolio Construction

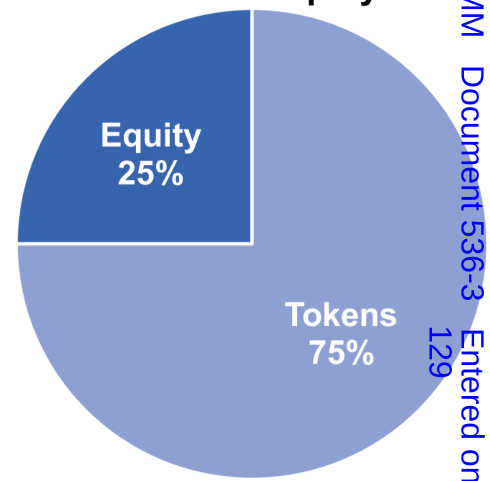
In our prop capital investments, we were capital constrained and not able to “size up” and lead as many investment rounds as desired.

- In Liquid Value Fund I, we will continue to invest heavily in early-stage (Seed/Series A) projects. Check sizes are under $1.5M with 30% capital allocated. These early-stage investments will start a relationship with the founders and allow for value to be built post investment.
- Roughly 40% of the fund will be invested in deals between $1.5M-$5M. With this check size we will lead follow-ons for Seed/Series A projects. Additionally, we will participate in private placements.
- Finally, roughly 30% of the fund will be invested in deals over $5M. These are unique opportunities where ability to size up meets conviction.

Check Size



Token vs. Equity



VYBE NETWORK

- Co-lead investor
- Token investment in a seed round project.
- Post money-cap $25M
- Strategy: Build relationship and size up in future rounds.

ORCA

- Private placement token investment from Orca treasury.
- Received token discount for lockup & strategic support.
- Strategy: Size positions up.

WINTERMUTE

- Series B equity investment w/ dividend.
- Chain agnostic crypto-adjacent infrastructure
- Strategy: Strategic cooperation & future investment

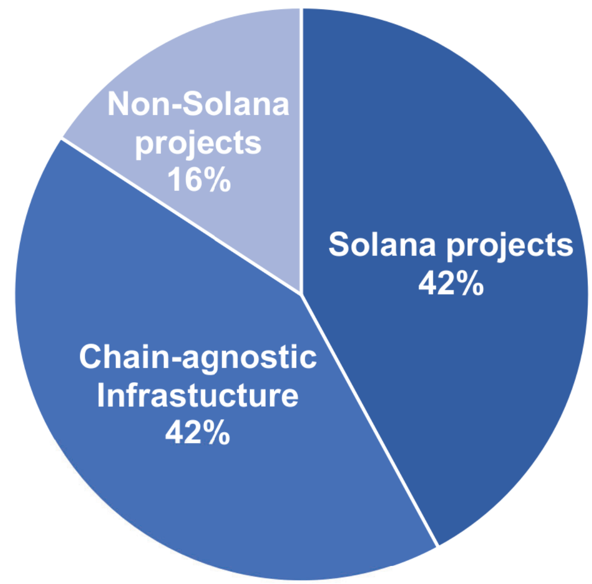
SINO GLOBAL CAPITAL | FTX

Portfolio Construction

The investment breakdown of our prop capital could reflect thinking on future investment allocations.

- Solana projects (42%): We continue to see strong deal flow in the Solana ecosystem due to our strong reputation and mindshare. These projects span DeFi, NFTs/gaming, sports betting, and developer infrastructure.
- Chain-agnostic infrastructure (42%): We view crypto-adjacent or supporting infrastructure like centralized exchanges, wallets, market makers, and agnostic aggregators as superior investment opportunities in a multi-chain world.
- Non-Solana projects (16%): We continue to believe in a multi-chain world where different use cases are more suited or less suited for different chains. We have also made investments on Ethereum, NEAR, and Binance Smart Chain.

***Potential* Investment Breakdown**



Note: The above percentages reflect the breakdown of our previous prop capital portfolio (19 investments); Liquid Value Fund I *could* exhibit a similar breakdown.

Exhibit F

FTX Advisory Board Meeting for Mar 21th 2022

Link to previous advisory board meetings: [Q4 2021]

Metrics

Market Share / Growth and Revenue

Data for 2021

- Ended 2021 with $1.004B of revenues for FTX.com and $40.9M of revenues for FTX.us
- Ended 2021 at 10.5% of global volume (FTX.com) and 3.3% of US volumes (FTX.us)

FTX Intl

Start: 12/31/2020, 7:00:00 PM
End: 12/31/2021, 7:00:00 PM

Revenue	
Future fill fees:	$674,032,441.51
Spot fill fees:	$146,031,877.64
LT creation fees:	$2,431,339.95
LT redemption fees:	$2,203,742.60
LT management fees:	$32,952,343.90
Options fees:	$682,838.87
Interest payments:	$12,493,765.07
Unstake fees:	$15,438,665.71
Loc interest:	$10,620,738.94
Withdrawal fees:	$10,655,651.65
OTC portal fees:	$2,238,073.38
Spot margin fees:	$22,731,583.04
TW options fees:	$258,235.62
Blockfolio interest fees:	$1,857,934.73
Staking fees:	$56,801,035.38
Nft fees:	$225,984.51
FTX Blockfolio fees:	$3,618,748.61
FTX Blockfolio fees ext:	$9,344,270.83
Total revenue:	$1,004,619,271.94

Does not include FTT Buy-and-burn.

Market share as of 12/31/2021 = 10.5%

FTX US

Start: 12/31/2020, 7:00:00 PM
End: 12/31/2021, 7:00:00 PM

Revenue	
Future fill fees:	$0.00
Spot fill fees:	$32,386,868.33
LT creation fees:	$0.00
LT redemption fees:	$0.00
LT management fees:	$0.00
Options fees:	$0.00
Interest payments:	$0.00
Unstake fees:	$0.00
Loc interest:	$0.00
Withdrawal fees:	$719,720.99
OTC portal fees:	$99,049.15
Spot margin fees:	$6,496,364.10
TW options fees:	$0.00
Blockfolio interest fees:	$0.00
Staking fees:	$0.00
Nft fees:	$213,228.01
Blockfolio platform fees:	$1,063,715.07
Total revenue:	$40,978,945.65

Market share as of 12/31/2021 = 3.3%

GOVERNMENT EXHIBIT 294
22 Cr. 673 (LAK)

YTD Data for 2022

FTX Intl	FTX US
Start: 12/31/2021, 7:00:00 PM End: 3/19/2022, 8:00:00 PM	Start: 12/31/2021, 7:00:00 PM End: 3/19/2022, 8:00:00 PM

FTX Intl

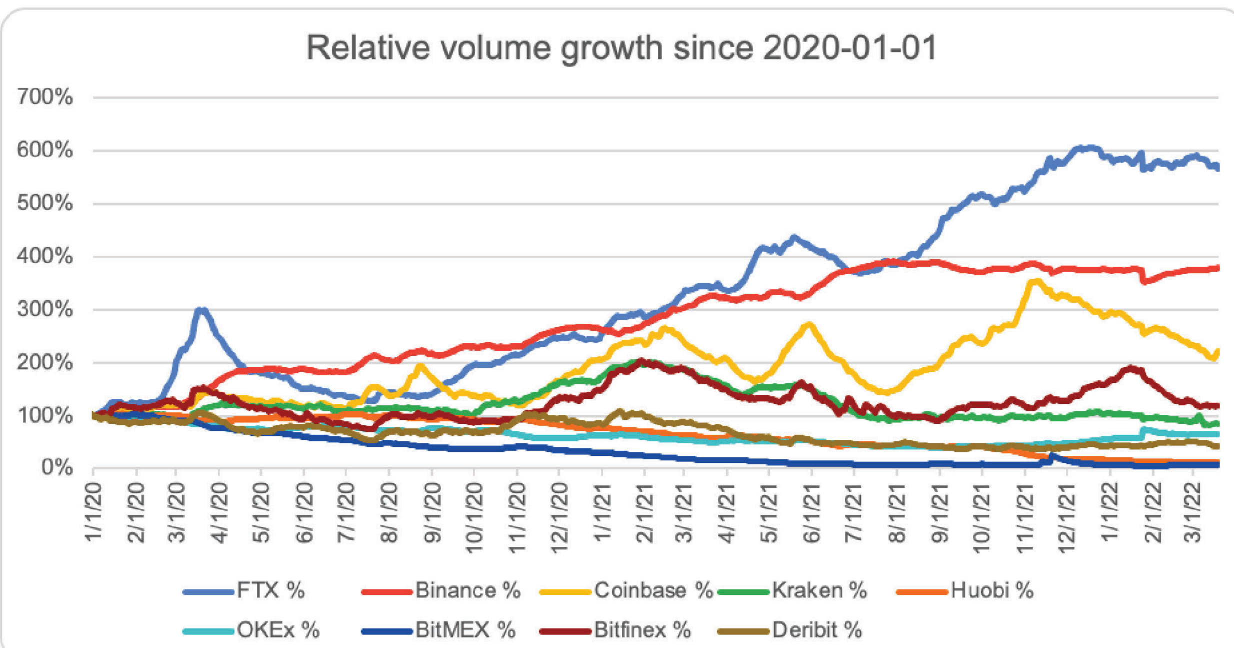
Revenue	
Future fill fees:	$140,663,954.68
Spot fill fees:	$38,395,905.20
LT creation fees:	$234,068.44
LT redemption fees:	$182,727.62
LT management fees:	$3,054,568.18
Options fees:	$504.59
Interest payments:	$1,417,494.38
Unstake fees:	$2,076,828.41
Loc interest:	$16,058,951.82
Withdrawal fees:	$3,466,272.35
OTC portal fees:	$415,591.74
Spot margin fees:	$4,722,563.86
TW options fees:	$20,968.25
Blockfolio interest fees:	$1,378,547.87
Staking fees:	$0.00
Nft fees:	$3,803.70
FTX Blockfolio fees:	$928,405.07
FTX Blockfolio fees ext:	$1,393,572.82
Total revenue:	$214,414,729.01

Does not include FTT Buy-and-burn.

FTX US

Revenue	
Future fill fees:	$0.00
Spot fill fees:	$8,890,397.10
LT creation fees:	$0.00
LT redemption fees:	$0.00
LT management fees:	$0.00
Options fees:	$0.00
Interest payments:	$0.00
Unstake fees:	$0.00
Loc interest:	$0.00
Withdrawal fees:	$215,827.67
OTC portal fees:	$5,702.98
Spot margin fees:	$323,272.54
TW options fees:	$0.00
Blockfolio interest fees:	$0.00
Staking fees:	$0.00
Nft fees:	$233,867.31
Blockfolio platform fees:	$1,284,786.50
Total revenue:	$10,953,854.10

FTX Intl	FTX US
Market share as of 03/20/2022 = 10.09%	Market share as of 03/20/2022 = 4.53%



The updated FTX Stats can be [found here (until 03/20)](#).

Highlights

1. Regulatory and licenses:
    a. Our application to the CFTC for real-time 24x7 margin system for retail customers is live for public comments
    b. Since the last advisory board meeting we've received licenses for crypto spot and derivatives in Europe (EU), Switzerland, Dubai, Japan, Australia, Gibraltar, Bahamas. In addition, we have pending license applications / acquisitions for the UK, Canada, Singapore (Spot), Bahrain, Philippines and Indonesia.
    c. 30 MTL applications have been accepted. Also, a NY Trust application license was submitted recently
2. Launch of new product lines including:
    a. Gaming and associated partnerships
    b. Whitelabels partnerships
    c. Access
    d. Ventures

Lowlights

1. The overall crypto volumes have come down substantially over Q1. Our market share has flattened because of two reasons:
    a. For the last 8 months, a majority of the company is focussed on building regulatory moats
    b. Rate limits and exchange throughput can be a huge unlock
        i. We just rolled out a 50% increase, expecting another 2-5x increase this year
    c. The benefits of being regulatory compliant (e.g. banking relationships, on/off ramps, ability to market) haven't come online as yet
        i. Banking relationships coming online over the next 3 months
        ii. US futures sometime in 2022
        iii. Absence of enforcement actions: the *only* major crypto exchange *anywhere* in the world without any enforcements, etc.
2. NFT volumes are quite small relative to our dominance in fungible tokens

Asks

1. CFTC license application:
    a. Please provide comments to our CFTC license application
    b. Brief notes here: https://docsend.com/view/ta36fnu4rg49gk8q (password: FTXBAHAMAS)
    c. The deadline for the comments is **April 11, 2022.**
2. Crypto Bahamas - Please visit us for Crypto Bahamas. We will host the next meeting in-person (with virtual attendance for those that cannot attend)

3. Fundraising (Series D for FTX Trading and Series A for FTX US) - See below

Product and recent launches

1. Continuation of a number of matching engine improvements to support the volume, increase reliability etc. We now have a little head room (~ 2 months) before this becomes a blocker
2. Large amount of developer capacity has been spent on regulatory approvals, and launch of FTX in Europe, Japan and Australia and integration of FTX US Derivatives to FTX US.
3. Large number of localized on/off-ramps and KYC / AML improvements including move to Stripe Identity
4. Support for whitelabel partners to bring them online. In the next few months, Ledger (hardware wallet), TradingView (trading charts software), DraftKings (sportsbetting) and Dave.com (neobank) might go online with crypto trading enabled by FTX
5. We are likely to launch Stocks in the US on the FTX App for internal testing in the next month. As we file state by state notices, we'll be able to launch over the next few months
6. Improved onboarding flow and telemetry for FTX App. Huge improvement from six months ago; some upgrades still coming.

FTX US

1. FTX US Derivatives and readiness for launch of derivatives in the US: sometime in 2022
2. Regulatory license applications including NY Trust license and MTLs (at 30 MTLs now)
3. Details about US derivatives:
    a. Direct to customer, including both retail and institutional
    b. Real-time margining
    c. Collateral posted directly with clearinghouse
    d. There is *some* precedent for some of this (e.g. ICE-NGX) but no US exchange has put these together before
    e. Would have prevented the LME/Nickel implosion
    f. Unlocks the US futures market for non-institutional participants

Fund raising

1. We are likely to pursue another fund raise for FTX and FTX US. This is for a few reasons:
    a. Acquisitions:
        i. We expect consolidation in the crypto exchange market. In particular, local exchanges with large user bases are particularly attractive at this time. We are in conversations with multiple large regional crypto exchanges.
        ii. In the last year, we have done roughly $1b of acquisitions, which have resulted in us getting: US futures license; European licensing; Japanese

licensing; an in-house video game; Australian licensing; in-house qualified custodian; blockchain/RPC server dev support; etc. There is some more on the horizon: mostly licensing and user acquisition.

b. Regulatory moats:
    i. FTX US Derivatives and a new real-time margin, direct to retail approach is likely to come online soon. This would be a huge regulatory moat and the captive opportunity is over 2x our current business. We would likely be the only exchange (crypto or otherwise) authorized to directly offer crypto futures to all clients in the US.
    ii. We're the most regulated exchange with 17 licenses and licenses to serve over 50% of the world's GDP (large parts of the world currently don't have a licensing regime). These are long-term compounding moats and advantages with better payment rails and ability to market.
c. More capacity for insurance fund for FTX US Derivatives. This hasn't been requested yet but there is a nontrivial chance that the CFTC requests us to post up to $1b for the risk waterfall. We posted $250m from a previous raise, and the CFTC was *very* happy; it probably sped up our futures application by 3-6 months and removed the remaining significant possibility of rejection.

Others

1. Recent acquisitions:
    a. Liquid - Japanese crypto exchange
    b. Storybook Brawl - A small TCG game to understand NFTs for gaming
    c. [Confidential and hasn't closed] Aza Finance - FX OTC desk for on and off ramps in Africa, together with licensing
2. Endorsements and marketing:
    a. FTX Super bowl ad in case you missed it
    b. Considering soccer, music, and fashion right now
3. FIA in Boca Raton:
    a. The Futures Industry Association conference was held in Boca Raton, Florida where crypto was an important topic of conversation. Here is a JPM report on the FIA (h/t to Oliver from Standard Investments); "FTX dominated the dialogue with its proposal to offer a non-intermediated, direct to customer clearing model".

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Attendees:
Alfred Lin (Sequoia)
Matt Huang (Paradigm)
Robert Sayle (Orlando Bravo)
Jan Koum (Newlands)
Michael Abramson (Newlands)
Prady Agarwal (Temasek)

Rick Prostko (OTPP)
Tom Loverro (IVP)
Rajeev Misra (SoftBank)
Neil Mehta (Greenoaks)
Nick Shalek (Ribbit)
Daniel Loeb (ThirdPoint)
Ravi Mhatre (LSVP)
Michael Kives (K5)
Bryan Baum (K5)
Nikhil Sachdev (Insight Partners)
Daniel Och (Willoughby)
Daegwon Chae (Bond Capital)
Oliver Weiner (40North)
Kyle Samani (Multicoin Capital)
Eileen Aptman (Belfer Management)
Dan Matuszewski (CMS Holdings)
Yoonkee Sull (ICONIQ)
Sam Bankman-Fried (FTX)
Brett Harrison (FTX US)
Zach Dexter (FTX US Derivatives)
Gary Wang (FTX)
Nishad Singh (FTX)
Amy Wu (FTX)
Dan Friedberg (FTX)
Ramnik Arora (FTX)